



StratSim*Management*

The Strategic Management Simulation

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We look forward to hearing your comments and suggestions on our latest release and best wishes for a great experience with *StratSimManagement*.

*Stu James
Mike Deighan
July 2009*

Introduction

Simulations are one of many different methods for learning business skills. Reading textbooks teaches the foundations of business theory, and real-world experience often shows the difficulty of putting those theories into practice. The lessons of experience usually have the greatest impact because we tend to learn best by doing, not solely by reading or hearing about other people's experiences. However, experience has its drawbacks as well. The well-known story about the employee who makes a mistake costing a company millions of dollars is a classic example of the possible high expense of on-the-job training. The employee enters the manager's office expecting to be fired and instead hears, "why would we fire you now, we've just invested \$10 million dollars in your training." Simulations represent a sensible balance between the two. Though clearly not as rich as reality, simulations can capture the essence of reality and help us practice implementing business theory without the potentially large costs of errors.

StratSimManagement is an integrated strategy simulation game based on the automobile industry. Needless to say, much of the complexity of the industry has been simplified to allow participants to focus their time and energy on strategic issues. However, we've retained as much realism as possible to make it easier to quickly understand the overall environment.

StratSimManagement addresses the following issues:

- Developing a business definition and implementing a profitable long-term business strategy
- Identifying market opportunities and creating product/service offerings to satisfy them
- Analyzing competitors and understanding their strategic intent
- Developing the corporate infrastructure necessary to sustain growth
- Allocating scarce resources among products, functions, and other investment alternatives
- Exploring international market and sourcing opportunities (optional module)

In the simulation, you or your group will be competing directly against other teams, either in your class or possibly at other universities. Decisions are made once each simulated year. Once all competitors have made these annual decisions, the simulation will be advanced, and the results will be updated. These results will be dependent upon your decisions, those of your competitors, and the evolution of the general industry environment. Each industry will develop uniquely based on how the competitors interact, what new products are introduced, and how these products are supported. As you will soon see, *StratSim* provides a very dynamic learning experience. Customers and competitors will change, new products will be introduced, and the economy will have its ups and downs. The simulation is designed to be a fun, but challenging, experience.

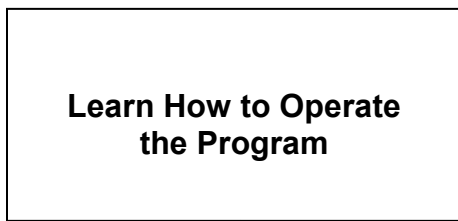
Competing in the *StratSim* environment will require complex analysis and decision-making. Therefore, take some time to familiarize yourself with the program and manual before beginning the exercise. While working through the simulation, you will find it helpful to refer to the manual for information and strategy tips. Section 3 of the manual contains helpful reference material.

Getting Started with StratSim

In order to benefit most from the StratSim experience, we recommend the following approach:



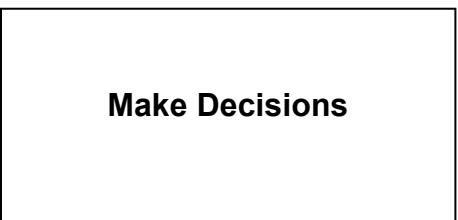
Section 1 of this manual presents a description of the market and the industry's current situation. A thorough understanding of the market, customers, and competitors will help you make better decisions.



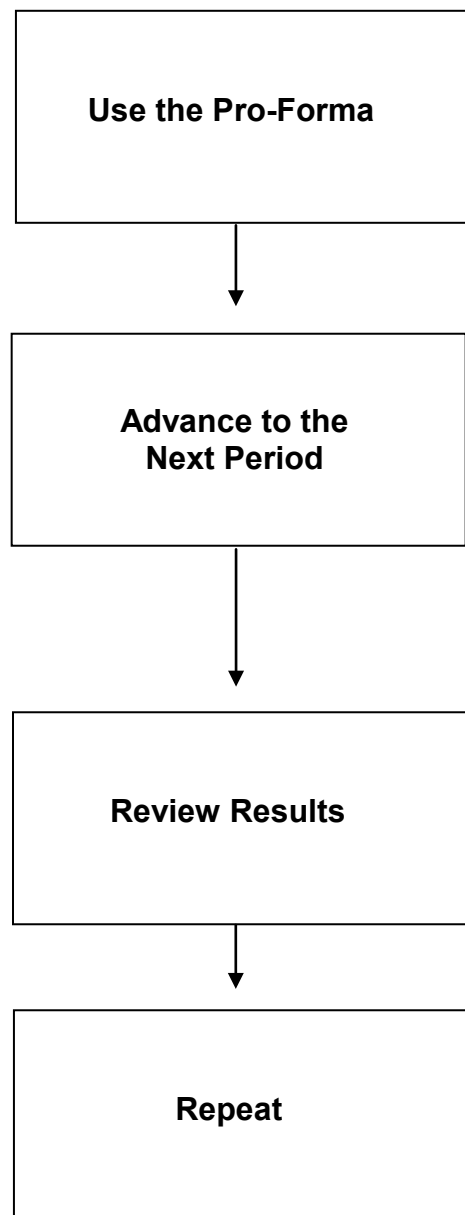
Section 2 provides information on how to use the simulation software, as well as a detailed description of each menu option. In order to quickly learn the functions of the menu commands and become familiar with operating the program, it will be helpful to have access to a computer as you work through this section.



Internal company reports and external reports on consumers and competitors are available by clicking on links, similar to using a web browser. The reports and research tools provide key information about customer needs and buying behavior, consumer perceptions of your product, potential target markets, and competitive analysis of products and firms. From this information, you will devise and implement an appropriate long-term strategy. Just as in real life, however, some information and reports will prove more useful than others. Part of your decision-making process will include deciding which information is most useful to your firm.



After reviewing information about your company, the competition, and the market, you will decide how to manage your firm in terms of product development, marketing, manufacturing, distribution, and financing. Consider the amount of time necessary to analyze the information and make decisions. This process requires an average of 2 hours, although one should allow extra time at first to get acclimated to the simulation. Make sure you allow sufficient time to analyze your resources thoroughly and make well-planned decisions. This is especially important in the periods when you launch new products.



Use the PRO-FORMA option in the DECISIONS menu to run a financial check on your input decisions. This option uses your decisions and forecasts to develop an estimate of next year's results. Once you have reviewed the PRO-FORMA, you may want to change some of your decisions.

Decisions are always saved to the web, so once you are satisfied with your decisions you are done. It is recommended that you print out and review your decisions each period using DECISIONS – DECISION SUMMARY - PRINT.

Your simulation administrator will use your decisions along with those of your competitors to advance the simulation to the next year. He or she will then update the website, and your firm will have access to the updated results.

Once the simulation has been advanced, select REFRESH DATA, or just login again to view the updated results. Review the results in the market before making decisions for the next year. The simulation does not specifically tell which strategies worked and which did not. Instead, you must compare your results with those of your competition and consider how well your strategy is working. You may find some of the comparative graphs helpful in your analysis.

Repeat the decision-making process until all periods have been completed. At the end of the simulation, you will be able to see how your firm performed over the entire game.

You may find it helpful to print out some reports and step back from the computer from time to time. Analyzing information and determining an integrated business plan is a complex task. It is important to take time and reflect on the information, especially when working in groups. You may also find it useful to refer to sections 3 and 4 of the manual to help design a framework for analyzing the environment and making decisions.

For many of you, using StratSim will be a unique learning experience. From the simulation, you will gain a practical understanding of business strategy and how various factors interact and affect one another. By analyzing information, making decisions, and observing the results, you will experience first-hand the challenges and rewards of strategic management.

The StratSim~~Management~~ Manual

The remainder of this manual is divided into five sections:

1. The StratSim Case

This section presents the StratSim industry in a form similar to a business school case. It also serves as an introduction to the situation when starting the simulation. Note: The exhibits in the case may or may not exactly match reports you will view in the simulation software, depending on the scenario your simulation administrator chooses.

2. StratSim Operations Guide

This section provides guidance on how to use the StratSim software, including hardware requirements, installation of the software, interaction with the program, and a detailed description of each menu option.

3. Managing for Success in StratSim

Tackling the simulation is quite an undertaking. This section provides a basic framework for how to create a strategy and introduces several frameworks to help keep your company on track during the simulation. The section also provides a number of helpful hints on how to improve your performance.

4. Appendix

The last section of the manual contains several appendices that provide details on the optional international module, exporting to a spreadsheet, a glossary, and an index.

Section 1: The StratSim Case

Congratulations on your recent appointment to manage one of the five firms in the StratSim industry. Though your primary objective will of course be to learn, you will also be setting other goals and objectives for your firm. Those may be to become the market leader, or perhaps to maximize shareholder return, or possibly to generate the most net income over the course of the game. Selecting objectives is up to your group and your instructor. However, you will find that the firms who do best in StratSim are able to leverage their core competencies, successfully enter new markets while defending their own position, and prudently manage their financial resources. This is far easier to say than to achieve. That is the challenge faced by all managers and executives.

Industry Overview

Your firm is one of five competitors¹ in the StratSim environment. Revenues are generated through sales of cars and trucks to automobile dealers in the StratSim world. Additional revenues are possible through sales into other markets². Industry sales in the most recent year were 4.3 million units and some growth is expected in the next year. An overview of the five firms and the vehicles they manufacture is provided in Exhibit 1.1 below. Each of the competitors starts in a different position with unique strengths and weaknesses. Note that the first letter of each vehicle matches the first letter of its manufacturer for easy identification.

Exhibit 1.1: Company and Vehicle Summary

<u>Firm Name</u>	<u>Sales (Billions)</u>	<u>Vehicles</u>
Amazing Cars (A)	\$ 20.5	Alec, Alfa, Awesome
Best Motor Works (B)	\$ 12.9	Beaut, Boffo, Buzzy
Cool Cars (C)	\$ 13.7	Cafav, Camini, Climax
Driven Motor Co. (D)	\$ 19.3	Defy, Delite, Detonka
Efficient Motors (E)	\$ 20.1	Efizz, Estruck, Euro

¹ Depending on the scenario your administrator chooses there may be a different configuration of competitors and vehicles. Some scenarios have firms starting in the same position, while others are unique-start, such as described in this case. In an even-start scenario, there may or may not be one competitor played by the computer. Each industry will develop uniquely, based on how the competitors interact, what new products are introduced, and how these products are supported. Please make sure to use the data in your simulation if the values are different than those in the case.

² The international module is optional and may not be part of your simulation experience and described separately in the appendix. In addition, some of the tools and reports described in the operations section of the manual may not have been selected by your instructor, or may be introduced later in the simulation.

Vehicle Classes

The industry has historically been broken into seven vehicle classes — Economy (E), Family (F), Luxury (L), Sports (S), Minivan (M), Truck (T), and Utility (U). However, one new class offers future potential if developed and marketed well – the AEV (A) vehicle, which is a new breakthrough in drive technology. Each of these classes represents a unique configuration that requires a significant expenditure in R&D to develop. Exhibit 1.2 shows sales for each vehicle class and market share for each vehicle. Please see the product class examples section for a more detailed description of each product class and a sample picture.

Exhibit 1.2: Sales and Market Share by Vehicle Class

<u>Vehicle Class</u>	<u>Sales (000s Units)</u>	<u>Vehicle / Market Share (units)</u>
Economy (E)	914	Alec / 63% Delite / 37%
Family (F)	1,439	Alfa / 22% Boffo / 7% Cafav / 13% Defy / 29% Efizz / 29%
Luxury (L)	291	Beaut / 59% Climax / 41%
Sports (S)	141	Buzzy / 100%
AEV (A)	0	No vehicles introduced yet
Minivan (M)	181	Camini / 100%
Utility (U)	640	Awesome / 49% Euro / 51%
Truck (T)	677	Detonka / 56% Estruck / 44%

Vehicle Attributes and Prices

Each vehicle has attributes that can be measured and compared. These can be briefly described as follows:

Price	Manufacturer's Suggested Retail Price (MSRP), though actual (retail) selling price to the customer will vary from the MSRP.
Size	Length and width of vehicle, which includes passenger and cargo space. Consumer perceptions are scaled from 0 (smallest) to 100 (largest).
Performance	Measured by engine horsepower.
Interior	Comfort, vision, instrumentation, music systems, ergonomics.
Styling	General curb appeal, styling, handling, finish / workmanship.
Safety	Structural design, braking systems, safety features.
Quality	Overall reliability, durability, consistency of products.

Each attribute has a range of value based on what can feasibly be designed and built by a firm. The interior, styling, safety, and quality attributes have a maximum value dependent upon the firm's technical capability in that area. In StratSim, vehicles with higher attributes in these four dimensions are more appealing to customers, all other things being equal. Customers may find a particular attribute more important (i.e. “hot button”), depending on their needs and preferences. Customers weigh these attributes against the price of the product and also consider the size and engine performance of the vehicle, which is typically a personal preference.

Price	Generally ranges from \$5,000 - \$50,000
Size	0-100 (smallest to largest)
Performance	50-300 Horsepower (low to high performance)
Interior	1 to the maximum value dependent on firm capability
Styling	1 to the maximum value dependent on firm capability
Safety	1 to the maximum value dependent on firm capability
Quality	1 to the maximum value dependent on firm capability

Pricing

Vehicle pricing and costing is complex and requires careful attention to detail. Depending on the context, price can have several meanings. The manufacturer sets the vehicle *MSRP* (Manufacturer's Suggested Retail Price). This is the price that is posted in the window of the vehicle, but is rarely the price that the customer actually pays. *Average retail price* is the average of all the actual prices that customers pay. This price includes promotional discounts, haggling with the dealer, dealer mark-ups, etc. The *dealer invoice* is what the dealer pays for the vehicle and is the monetary value your firm receives as revenues. Finally, the *manufacturing cost* for the vehicle is the variable cost associated with production of the vehicle. The dealer invoice less the manufacturing cost is the per unit *margin* the manufacturer receives for each sale. The current vehicle attributes and manufacturer's suggested retail price (MSRP) are summarized in Exhibit 1.3, ordered by vehicle class.

Exhibit 1.3: Vehicle Attributes/Characteristics by Class and Name

<u>Class</u>	<u>Name</u>	<u>MSRP</u>	<u>Size</u>	<u>Horsepower</u>	<u>Interior</u>	<u>Styling</u>	<u>Safety</u>	<u>Quality</u>
Economy	Alec	\$15,351	14	135	2	1	3	2
	Delite	\$11,293	5	85	1	1	1	1
Family	Alfa	\$24,084	28	165	2	1	3	2
	Boffo	\$35,003	49	200	4	3	2	2
	Cafav	\$31,361	49	165	4	2	2	2
	Defy	\$25,921	43	165	2	1	3	2
	Efizz	\$18,869	35	140	1	1	2	1
Luxury	Beaut	\$38,385	62	240	2	4	2	2
	Climax	\$45,997	74	240	4	2	2	2
Sports	Buzzy	\$34,652	54	190	3	3	2	3
Minivan	Camini	\$24,144	82	200	2	1	2	1
Utility	Awesome	\$21,149	40	220	1	1	1	1
	Euro	\$26,528	59	200	1	3	1	1
Truck	Detonka	\$19,572	66	185	1	1	1	1
	Estruck	\$21,843	75	280	1	1	1	2

Product Development

As is the case with the automobile industry, product development in StratSim is expensive, time consuming, and risky. However, the reward of having the leading vehicle within a product class is often well worth the investment. Additionally, the risk of falling behind the times in terms of styling, performance, and appeal is dangerous.

There are five options for product development and product launch in StratSim, each with different costs and development time frames. An overview of these five product development paths is illustrated in Exhibit 1.4 below and described in more detail on the following page.

Exhibit 1.4: Product Development Timelines

	Results for Period N¹ Decisions for N+1²	Results for Period N+1 Decisions for N+2	Results for Period N+2 Decisions for N+3	Results for Period N+3
Minor Upgrade \$100-\$300 Million in current year	Modify Specs In Dev. Center Adjust Marketing Mix Adjust Production (Inventory disposed)	In Market Results impacted. (Including sales, retooling, inventory write-off)	In Market	In Market
Major Upgrade \$250-\$750 Million Spread over 2 years	Modify Specs In Dev. Center Build Add'l Capacity	Modify Specs In Dev. Center Adjust Marketing Mix Adjust Production (Inventory disposed)	In Market Results impacted. (Including sales, retooling, inventory write-off)	In Market
New Product (Existing class) \$250-\$1,500 Mill. Spread over 2 years	Create Concept Name Product Modify Specs In Dev. Center Build Add'l Capacity	Modify Specs In Dev. Center Set Marketing Mix Set Production	In Market Results impacted. (Including sales, retooling)	In Market
New Product (New class) \$500-\$2,500 Mill. Spread over 3 years	Create Concept Name Product Modify Specs In Dev. Center	Modify Specs In Dev. Center Build Add'l Capacity	Modify Specs In Dev. Center Set Marketing Mix Set Production	In Market Results impacted. (Including sales, retooling)

¹ Period "N" is the period just completed for which you are now currently reviewing results; e.g.: Period 1

² Period "N+1" is the period for which you are now making decisions. It is the period for which results will be created as the simulation is advanced after the current decisions are completed; e.g.: Period 2.

1. “Minor Upgrade” – Based on Existing Product – Immediate - Uses Dev. Center for 1 Advance

The first option is a minor upgrade to an existing vehicle. A minor upgrade is completed and launched in the current decision period and normally costs in the range of \$100 to \$300 million, depending on the significance of the upgrade. A minor upgrade will have lower unit cost and/or enhanced product attributes. For example, firm A markets a family car (Alfa) with characteristics 2, 1, 3, and 2. Upgraded characteristics might be 3, 1, 3, 3, with changes to the horsepower and size as well. The maximum change for a minor upgrade is 1 on each of the four vehicle specifications, 5 on HP, and 2 on size.

2. “Major Upgrade” – Based on Existing Product – 1 Year – Uses Dev. Center for 2 Advances

The second option is a major upgrade to an existing vehicle. A major upgrade is completed and launched in the year following when it is begun and normally costs in the range of \$250 to \$750 million depending on the significance of the upgrade. For example, firm A currently markets a family car (Alfa) with characteristics 2, 1, 3, and 2. Upgraded characteristics might be 4, 1, 3, 4, with changes to the horsepower and size as well. The maximum change for a major upgrade in the first year is 2 on each of the four vehicle specifications, 20 on HP, and 10 on size. These may be adjusted in the second year.

3. “New Product (Existing Class)” – Based on a New Vehicle Concept – 2 Advances

The third development option is for a firm to develop a new vehicle in a class where it has experience, but to start from a new concept rather than upgrading an existing vehicle. This option is completed and launched in the year following when it is begun and normally costs between \$250 million and \$1.5 billion to complete, again depending on the particular characteristics. For example, Firm A currently markets a family car (Alfa) with characteristics 2, 1, 3, 2. Firm A decides to come out with a totally new, higher-end, family class vehicle named Aphid. There will be no brand awareness for the product, since it will have a new nameplate.

4. “New Product (New Class)” – Based on a New Vehicle Concept – 3 Advances

The fourth development option is for a firm to develop a new vehicle in a class in which it has no experience, making it necessary to start from a totally new concept. This option is completed and launched in the second year following when it is begun and normally costs in excess of \$1 billion. As an example, Firm A currently markets products in the economy, family, and sports product classes. They decide to develop a product in the truck category. There will be no brand awareness for the product, since it will have a new nameplate.

Product Development Centers

Each firm has a limited number of product development centers that affects its ability to work on multiple development projects (upgrades, new products) concurrently. Building and funding new centers can increase a firm’s ability to develop more products at the same time. This investment corresponds to hiring more product development engineers and expanding the R&D facilities. This will allow a firm to work on more new vehicles or upgrades at the same time.

Product Development Centers = Maximum number of product development projects a firm can work on concurrently in a given year.

Product Concepts

The initial stage in the product development process is to create a concept. A concept is created by your development engineers and costs nothing until you decide to develop it by moving the concept into one of the development centers. Each concept and product development project is defined by its attributes – class, size, performance (engine HP), interior, styling, safety, and quality. There is also an overall cost for the development process, an estimated unit cost, and a time to complete. A sample concept is shown below.

Concept 1: Economy, 10, 100hp

Class:

Size (1-100):

Engine (HP):

Attributes (Int/Styl/Saf/Qua):

Est. Base Cost (100k units):

Development Cost (mill.):

Development Time:

Economy

10

100

2 / 2 / 2 / 2

\$9,970

\$461

2 yrs



The estimated unit cost is based on 100,000 units of production (“base cost”). If actual production is less than 100,000 units, actual unit costs will be higher than the estimate. If actual production is greater than projected, actual unit costs will be lower than estimated. In general, unit costs decrease with greater production volumes due to the experience effect (see Section 3 for a more in-depth discussion of experience effects and economies of scale).

Technology Capabilities

Each firm in the StratSim world has technological capabilities that parallel the vehicle attributes of interior, styling, safety, and quality. To keep measurement relatively straightforward, these are rated from 1 to the current maximum (where 1 equals a poor rating on that attribute). Firms also have the ability to expand their capabilities up to current technology limits through investments in technology capabilities. These investments provide two advantages — first, the ability to develop cars with enhanced features (e.g. higher ratings); and second, the lowering of costs to develop a similar set of characteristics. For example, a firm with technology capabilities of 8, 8, 8, 8 (interior, styling, safety, quality) would be able to produce a 4, 4, 4, 4 car at a lower unit cost than a firm with a technology profile of 6, 6, 6, 6. The current technology profiles with the maximum limitations are displayed below.

Exhibit 1.5: Technology Capabilities of Firms

	Interior	Styling	Safety	Quality
Maximum	9	11	9	11
Amazing Cars (A)	5	5	4	6
Best Motor Works (B)	7	8	5	7
Cool Cars (C)	6	7	5	7
Driven Motor Co. (D)	4	5	5	6
Efficient Motors (E)	3	5	3	5

Advertising and Promotion

Product advertising plays an important role in establishing vehicle awareness and shaping consumers' perceptions of products. In the StratSim world, firms are responsible for setting an advertising budget and an advertising theme. The majority of the budget is spent on media buys, with the remainder on the creative input and theme. The theme emphasizes one of the primary characteristics of the vehicle — performance, interior, styling, safety, or quality. Product managers attempt to match the advertising theme with the "hot buttons" of their target consumer.

Corporate advertising budgets are set on a regional basis. These funds are spent on generating a corporate identity in support of the product advertising. A public relations budget is also set to support publicity events for the firm, corporate, and investor relations. Finally, direct marketing can be used to generate interest within a particular target segment.

Promotional budgets are set at the product level and include special incentive programs and general promotional activities. The purpose of special incentive programs is to move product during slower periods of demand. Examples of incentives include consumer rebates, below market financing, and dealer-oriented sales incentives. Examples of general promotional activities include funds for brochures, advertising in support of incentive programs, mailings, trade shows, and motivational contests.

Distribution

While the purpose of advertising and promotion is to generate interest, create an image, and communicate information about the vehicle, it is the automobile dealership that actually makes the sale and provides follow-up services. In StratSim, each firm has a captive dealership distribution structure organized on a regional basis. Firms must decide how many dealerships to open or close in each region each period as well as allocate a budget for training and support.

The profitability and success of a dealership depends to a large extent on the popularity of the manufacturer's vehicles. However, the number of dealerships also plays a role. Having too few dealerships can leave smaller cities and towns uncovered, but having too many dealerships can lead to poor results, due to sales being spread too thinly across dealerships and overly competitive pricing within regions. In StratSim, this is referred to as dealer coverage. Management often looks to the sales, gross profit per dealer, and coverage as indicators of the proper balance. Dealer ratings can also provide insight into the success of dealerships. A strong dealer gross is expected to translate into a successful dealership, but training, support, and service revenues all contribute as well.

Purchase Decision

What vehicle a customer will ultimately purchase reflects a complex decision making process. First of all, customers consider the attributes of the vehicle. Of course, the overall appeal of the vehicle is weighed against the price the customer will ultimately pay. This trade-off between price and appeal is what creates value in the mind of the customer. Each customer has different needs and also places a different importance on each need. Some attributes may be very important to the customer ("hot buttons") while others are less important. In some cases, customers may want more of an attribute, while in other cases, they may have a particular ideal in mind. Their decision will also be impacted by their knowledge of the vehicle (awareness), experience at the dealership (dealer rating, dealer coverage), and special promotional offers and activities.

Consumer Market Segments

There are five consumer segments in StratSim, numbered 1 through 5. Exhibit 1.6 provides an overview of each segment with units sold, and Appendix B provides further detail.

Exhibit 1.6: Description of Consumer Market Segments

<u>Segment</u>	<u>Description</u>
Value Seekers (1) Sales = 792K units	Value seekers have basic transportation needs that include commuting to work. Quality and safety are most important to these price sensitive buyers. Vehicle classes that may be of particular interest include economy and truck.
Families (2) Sales = 1,663K units	Families have flexible, but somewhat basic transportation needs. They need a combination of people and cargo-carrying capabilities. Safety and quality are most important to these fairly price sensitive buyers. Vehicle classes of particular interest include family, economy, and minivan.
Singles (3) Sales = 851K units	The singles market is young, and this segment has more disposable income to spend on transportation. Singles have a wide variety of transportation needs. Styling and performance are most important to this segment. Vehicle classes that may be of particular interest include sports and truck.
High Income (4) Sales = 363K units	People with high incomes have more elaborate transportation needs. This segment may include families, professionals, or retirees. Since they have more disposable income to spend on transportation, they are likely to purchase vehicles with extra features and good performance. Vehicle classes that may be of particular interest include family and luxury.
Enterprisers (5) Sales = 614K units	Enterprisers see their vehicle as an extension of their business and personal aspirations. They use their vehicles for business transportation and also to impress potential clients. People with careers in real estate, investments, and sales are likely to fall in this category. Vehicle classes that may be of particular interest are luxury, utility, and other high-end vehicles, depending on their uses.

New Opportunities

Market research has also identified some potential new customers in the market, whose needs are not yet satisfied by the current vehicles. New customers may be looking for a new vehicle class, such as a AEV, or a significantly different configuration of an existing vehicle class. If a firm introduces such a vehicle that “excites” these customers, the new customer may “pop”, creating new demand in the marketplace. As a rule in StratSim, at most, one new customer can “pop” each period. Additional new customer opportunities may be identified as the simulation progresses.

It is important to understand that there are no guarantees with introducing products into new markets and StratSim reflects this risk.

Capacity and Production

Capacity for each firm is fixed for a given year. However, changes of up to 50% of your current capacity may be initiated at any time. *The increase or decrease takes one year to take effect.* Thus, if you build additional capacity this year, next year you will be able to set production levels based on the new plant capacity. (See Exhibit 1.4 for how increasing capacity fits into the new product launch timetable). The original costs for the capacity are shown on the balance sheet under plant and equipment, while the appropriate depreciation is expensed each year on the income statement.

Firms may choose to set production levels above capacity in the short-run by running extra shifts and paying overtime. An over-capacity charge will be incurred as an extraordinary item on the income statement if capacity utilization is over 100%.

Production within the constraint of capacity is fairly flexible. Firms must decide on production volume for each product on the market. When the production level on a line is increased from the previous period, the capacity now associated with that product is upgraded and retooled. Retooling also occurs when current or new productive capacity is dedicated to a new product line. The retooling investment is reflected in an increase in the plant and equipment on the balance sheet. Lower plant maintenance costs are also likely when the factory is updated.

Firms may choose to use a flexible production option that increases or decreases production by up to 10% from the firm's target production value, depending on demand. If production volume is insufficient for demand, consumers who are unable to purchase a vehicle at the end of the period postpone their purchase decision until the beginning of the next year, purchase an alternative brand, or buy a used vehicle.

Inventory levels should be considered when deciding on production volume for the current year. If a product is being redesigned or discontinued, the current inventory will be sold in markets outside the StratSim simulation at a price dependent on the level of inventory compared to last year's sales.

Financial Situation

Financial management in StratSim is essential. In addition to choosing among investments in technology, manufacturing capacity, retooling, and platform development, a firm must also manage cash flow and investor expectations.

The income statement in StratSim summarizes revenues and expenses for the company. Revenues consist of vehicle sales to the dealer and other sources of revenues. Cost of goods sold is then subtracted to generate a gross margin. Non-direct costs such as advertising, research and development, administration and overhead, plant maintenance, and depreciation are then subtracted to create income from operations. Net corporate income is calculated once extraordinary items and interest are applied. Finally, taxes are applied at the appropriate rate for your environment, leaving income after taxes. There is no provision for tax loss carry-forward in StratSim.

The balance sheet shows assets of cash, receivables, inventory, and plant and equipment, less depreciation. Liabilities consist of short- and long-term debt and accounts payable. Equity consists of original value of stock at par, any additional paid in capital, and retained earnings.

A firm running low on cash has three options. First, it may sell or issue shares of stock. This has the benefit of not creating an interest expense or additional obligations. However, the drawback is dilution

of the shares of stock that may lower the share price at the time of issuance. The second option for raising capital is to issue 10-year bonds, callable after 3 years. The interest rate will reflect the current credit rating for the company. AAA rated bonds offer the lowest investment risk and therefore the lowest interest rate. The third option is to take on a revolving line of credit, which, if neither of the first two options is exercised, will be the default case. Short-term credit typically demands a higher interest rate than long-term bonds.

The Objective

The task of the management team is to maintain long-term profitability in the context of an increasingly competitive and changing environment. Customer needs and tastes will evolve. Competitors will be battling for market share and entering new product classes. Technologies and cost structures for the firms will change over time.

Every simulated year, each firm will perform a situation analysis, identify problems and opportunities, and generate alternative options for decisions. Finally, based on careful consideration, persuasive presentation of competing ideas, and probably some arm-twisting, your team will come to a consensus as to which set of decision is best and implement them.

Once your firm has a thorough understanding of the StratSim world, one of the first tasks should be to define a strategy. A successful firm will likely have a strategy that is well thought out and executed. Creating a sound strategy is the most important process your firm will undertake because your strategy is the framework for all decision-making and firm organization. The strategy should be a long-term vision for your firm that every member of your team can reference when making decisions and analyzing data. Strategy is defining segments served and creating a sustainable competitive advantage. It is your road map. It is where and how your firm chooses to compete. It is essential.

Enjoy your tenure as a management team in the StratSim world. It should be an exciting and challenging learning experience. Good luck and have fun!

Product Class Examples

The following pages provide a sample picture of a vehicle in each product class in StratSim as well as a brief description of some of the features one can expect to find in each class. Please note that the specifications are approximate and meant as a general guide to distinguishing product classes.

Economy

Economy vehicles typically are small, low priced cars with less powerful engines. Price in the early periods is under \$18,000. Engine horsepower is likely to be under 150. Most economy vehicles will have a hatchback and sedan model option, and some may also offer a small wagon. An economy car can usually seat 4 adults, though probably not comfortably. A child may be able squeeze in the middle of the back seat in a pinch. Legroom and storage space are minimal. In StratSim, this corresponds to a size of approximately 0-30.



Features on an economy car are also likely to be basic in order to keep the costs down. Some consumers are willing to pay more for these features, but one should be careful not to provide too many, driving up costs and eroding profitability. It is difficult to make significant money in the economy segment, though production volumes are significant. Also, for many consumers, an economy vehicle is their first car purchase, and therefore is an important part of your vehicle line-up.

Examples of economy vehicles are the Toyota Yaris, Ford Focus, Saturn Ion, Volkswagen Beetle, Honda Civic, and Chevy Cobalt.

Family

Family vehicles are mid-sized, medium priced cars with mid-range engines. Price in the early periods is between \$15,000-\$25,000. Engine horsepower is likely to be 120-180. Most family vehicles will have several different model offerings, and most will have four doors. A family car can usually seat 5 adults, though those in the back seat may be a bit cramped. Legroom and storage space are reasonable. In StratSim, this corresponds to a size of approximately 30-60.

Features on a family car are likely to focus on safety and flexible storage. Customers who are in search of a family vehicle want a reliable, safe means of transportation for their families at a reasonable cost. This vehicle is likely to be their primary mode of transportation and should hold up well under the normal wear and tear of everyday family life. Volumes for this class are significant, so it is important to create a vehicle with wide appeal. Price and promotional deals have a significant impact on buyers of these vehicles.



Examples of family vehicles are the Honda Accord, and Toyota Camry.

Luxury

Luxury vehicles are high priced cars with top of the line features and performance. Price is typically in excess of \$35,000. Engine horsepower is likely to be over 150. Luxury vehicles come in a wide array of models including sedans, coupes, and even wagons. A luxury car can usually seat 5 adults comfortably. Legroom and storage space are ample. In StratSim, this corresponds to a size of approximately 45-70.



Features on a luxury car are normally numerous. Interior, styling, safety, and quality are all likely to be quite high. Customers who are in search of a luxury vehicle want the best and are willing to pay for it.

Though volumes in this class are less, per vehicle profit margins are high. These vehicles are also often the “flagship” brand for the company and help create showroom traffic.

Examples of luxury vehicles are Mercedes, Cadillacs, Lexus, and some BMWs.

Sports

Sports vehicles emphasize performance and come in a range of prices and sizes. Typically they appeal to the young and the young at heart. An economy sports car might be priced as low as \$14,000, whereas a high-end sports car may well be in excess of \$35,000. Engine horsepower is likely to be over 150. Sports cars normally are coupes or hatchbacks. Some sports cars have only two front seats while others may have small back seats for additional cramped seating. Legroom in the front is reasonable, but there is typically little storage space. In StratSim, this corresponds to a size of approximately 15-60.



Features on sports cars usually are related to styling and performance. Customers who are in search of a sports car want to be noticed and are willing to spend a good chunk of their disposable income to that end. Though volumes in this class are less, per vehicle profit margins are pretty good. These vehicles are also often high awareness brands for the company and help create showroom traffic.

Examples of sports cars are Ford Mustang, Mazda Miata, and Nissan 350Z.

Alternative Energy Vehicle (AEV)

Alternative Energy Vehicles (AEVs) have more to do with the technology used to power the vehicle than the style and size of the vehicle. AEVs encompass a wide range of technologies that might be used to power the vehicle including electricity only (rechargeable batteries), fuel cell, hydrogen, solar, or some combination of these. Though the technology is more expensive and somewhat untested, it does lead to significantly improved energy efficiency and lower pollution. Power and/or range still remain a challenge. Expected prices are from \$20,000 and up. Engine horsepower is likely to be 70-150, and size in StratSim ranges from 0-50 depending upon the application.



Minivan

Minivans are family oriented vehicles that have lots of passenger and storage room, but drive more like a car than a truck. These are perfect for families who need more space than a family vehicle can offer. Price is typically between \$18,000-\$35,000. Engine horsepower is likely to be 120-240. Most minivans will have several different model offerings, which mainly vary seating capacity and cargo area. A minivan can usually seat 7 adults, possibly more depending on the seating configuration. Legroom and storage space are excellent. In StratSim, this corresponds to a size of approximately 50-100.



Like family vehicles, features on a minivan are likely to focus on safety and flexible storage. Customers who are in search of a family vehicle want a reliable, safe means of transportation for their families at a reasonable cost. This vehicle is likely to be their primary mode of transportation and should hold up well under the normal wear and tear of everyday family life. Price and promotional deals have a significant impact on buyers of these vehicles.

Examples of minivans include the Dodge Caravan, Toyota Sienna, and Honda Odyssey.

Utility

Combine the attributes of a truck, minivan, and sports car, and you get a utility vehicle. Utility vehicles offer a little bit of fun and utility for those who need more passenger room than a truck, but don't want to have the minivan "family" image. Price starts at around \$17,000 for small utility vehicles, but fully loaded large ones will sell for over \$40,000. Engine horsepower is likely to exceed 150. Legroom and storage space are excellent on larger models, which can also seat 5 adults. In StratSim, sizes of utility vehicles range from 30-90.



Features on utility vehicles usually are related to styling and performance. Many of the high-end models come with leather seats and other amenities normally found in luxury cars. Most customers prefer the 4-wheel drive models.

Examples of utility vehicles include the Ford Explorer, Chevy Blazer, and Isuzu Trooper.

Truck

At one time, trucks were reserved for farmers and handymen, but no more. Truck sales have taken off in recent years thanks to their broadening appeal as an alternative to sports cars and a great second vehicle. Truck prices start at around \$12,000 for small ones, but fully loaded larger trucks will sell for \$25,000 or more. Engine horsepower also has a wide range depending on the size of the truck. Leg and headroom is ample, and most trucks seat 2 or 3, though some new models are adding back seats. In StratSim, sizes of trucks correspond to a range of approximately 30-90.

Features on trucks usually relate to styling and performance. Four-wheel drive models are very popular as well. Truck buyers are quite brand-loyal.



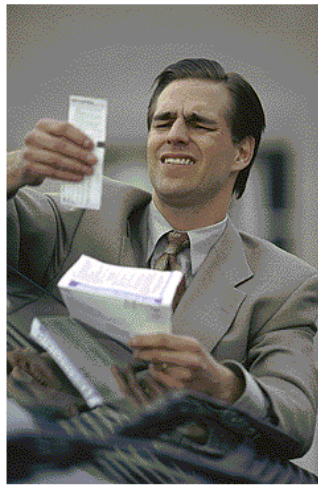
Ford, Chevy, Dodge, and Toyota all make several popular truck models.

Segment Descriptions

The following pages provide a brief description of the five consumer segments in StratSim.

Value Seekers (1)

Value Seekers have basic transportation needs. They use their vehicle to commute to work, or perhaps as a basic all-purpose vehicle. However, they don't have as much disposable income as other segments and are, therefore, more price sensitive. Quality and safety are especially important to these buyers. Vehicle classes that may be of particular interest to value seekers include economy and truck.



Families (2)

Families have flexible, but somewhat basic transportation needs. They need a combination of people and cargo-carrying capabilities with perhaps a bit of family fun built in. However, they don't have as much disposable income as other segments and are, therefore, somewhat price sensitive. Safety and quality are especially important to these buyers. Vehicle classes that may be of particular interest to families include family, economy, and minivan.



Singles (3)

The singles market is young, with more disposable income to spend on transportation and a wide variety of transportation needs. Styling and performance are most important to this segment. Vehicle classes that may be of particular interest to singles include sports and truck.



High Income (4)

People with high incomes have more elaborate transportation needs. This segment may be families, professionals, or retirees. They see their vehicle as an indication of their success in life. Since they have more disposable income to spend on transportation, they are likely to purchase vehicles with extra features and good performance. Vehicle classes that may be of particular interest to the high-income segment include family and luxury.



Enterprisers (5)

Enterprisers see their vehicle as an extension of their business and personal aspirations. Enterprisers use their vehicles for business transportation and also to impress potential clients. Their vehicles may be company or privately-owned. Careers such as real estate, investments, and sales are likely to fall in this category. Vehicle classes that may be of particular interest to enterprisers are luxury/sports utility, and other high-end vehicles, depending on their business needs.



Section 2: StratSim Operations Guide

StratSim*Management* is designed to be easy to use and is compatible with all the recent Microsoft Windows operating systems. This operations guide helps you start the simulation and also provides more detailed descriptions of each of the reports and decision screens.

The StratSim simulation contains all the marketing, competitive, and financial reports for your industry. After reviewing these reports, you will make decisions that are automatically saved on the Interpretive website. Once your decisions (and those of your competitors) are completed, Interpretive will advance the simulation, update the results, and you will be able to view the outcomes.

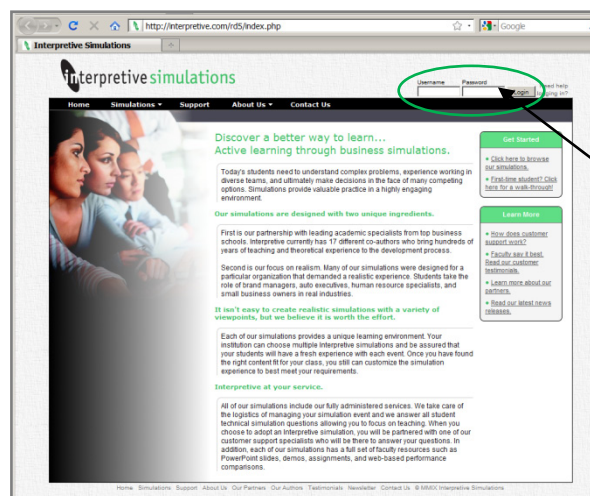
Getting Started

StratSim is compatible with all the recent Microsoft Windows operating systems and requires a hard drive and Internet connection. The minimum requirements are:

- Windows Vista or XP
- MAC compatible
- Internet access (Broadband recommended, dial-up acceptable) and a web-browser
- 4 MB of hard disk space (or zip drive / memory stick)

Accessing the Simulation

To use StratSim, first point your internet browser to the home page login at www.interpretive.com. You will receive your login information either from your instructor or directly from Interpretive.



Enter User ID
and Password

After logging in and placing your order (if you haven't yet done so), you will go to your course website where you can access the simulation and student guide, comparative results, and other pertinent information as shown below.

My Order: View your order information

My Settings: Change your password

My Team: View information about your team members

Resources: Simulation-related materials (manual, PowerPoints, flash tours, etc.)

Help: Help and FAQs

Click on the active [Download Simulation](#) link in the home page to access *StratSimManagement*. From this screen, click the [StratSim Installation Program](#) link to open or save the program to your hard drive.

Access simulation by first clicking the active [Download Simulation](#) link, and then clicking the [StratSim Installation](#) link.

Remember to refer back to the Comparative Results screen on your class website to see how you or your team compares with others competing in your simulation event.

Installation

You may open and run the installation file directly from the Internet or download the archive (.exe file) to a folder. The StratSim software is in a self-extracting installation file. If you choose to open the file, follow the installation instructions to extract the programs. If you choose to save the file to a folder on your hard drive, save the file, then go to the folder, double click on the .exe file, and follow the installation instructions.

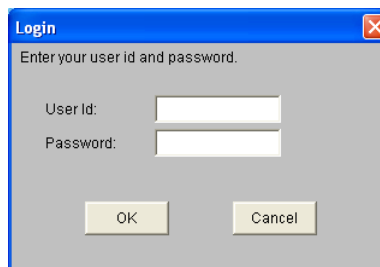
StratSim may be installed on multiple computers (work and school, for example), but you should refresh the data or login again anytime you change locations.

Login to StratSim

The installation process will allow you to create a StratSim icon on your desktop and on the Start menu. To run the program, either double click on the StratSim icon on your desktop or click on the Programs/Simulations/StratSim icon from the Start menu. The following login screen will appear:



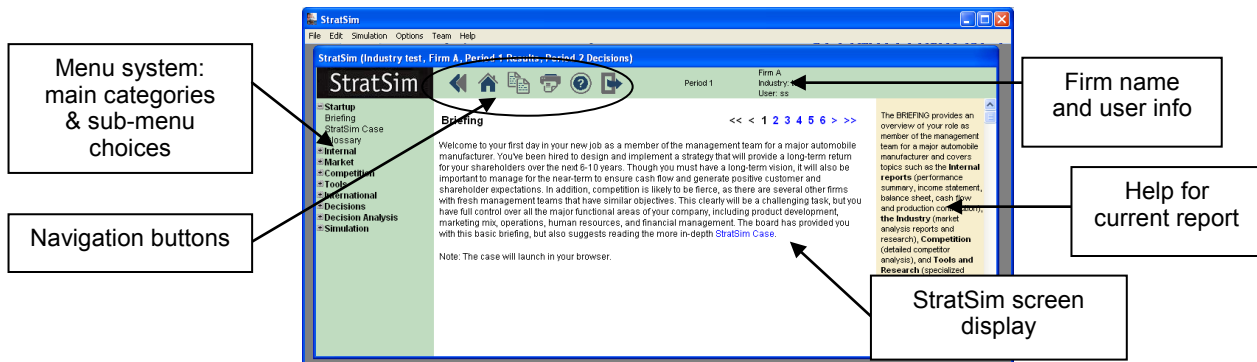
When you login to the program, make sure you have an active Internet connection. You will also need your user ID and password, which should have been sent directly to you by the simulation administrator. From this screen, choose the [Login] button. You'll now be prompted for your user ID and password (see Login screen below). You must have these two unique pieces of information to start the simulation.



After entering your unique sign-in information and clicking on the [OK] button, you may be asked to register (first time logging in only). Please make sure you enter the registration information accurately. The registration information is especially important so that the simulation support staff can contact you if necessary.

Simulation Navigation

Each page of the StatSim site contains an easy-to-use menu system consisting of three parts: (1) specific menu options and links to decision-making tools and input screens, found on the left side of the StatSim browser window; (2) green navigation and general control buttons across the top; and (3) pull-down menu to show the current period in the upper right-hand corner.

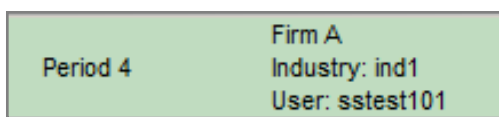


The links on the left of the StratSim window lead to all the information and tools you will need to analyze your current position, plan a strategy, and input your decisions. These links are divided into nine categories: *Startup*, *Internal*, *Market*, *Competition*, *Tools*, *International*, *Decisions*, *Analysis*, and *Simulation*. One of the easiest ways to find out more about an option is just to try it out. If you need more information, use the on-screen [HELP] button to consult the student guide.

Each part includes menu links that correspond to different reports, decisions, or actions. For example, under Startup there are links for the Briefing, Case, and Glossary. The menu system is expandable and collapsible. For instance, click on the button to the left of Startup, and the Briefing, Case and Glossary will collapse back into Startup.



The navigation and general control buttons found at the top of the simulation screen are: Back, Home, Spreadsheet, Print, Help, and Logout. The Print button applies to the report currently on the screen. For instance, if you click on the Print button when viewing the Balance Sheet, the report will be sent to your default printer. Clicking on the Spreadsheet button will allow you to download data to a spreadsheet. Clicking on the Help button will open the operations guide. The Back button lets you reach the last page you visited and the Home button brings you to the homepage of the simulation.



The area in the upper right-hand corner of the simulation screen displays the current period along with firm, industry, and user names.

Pull-down Menu

File Edit Simulation Options Team Help

The main pull-down menu bar across the top of the screen consists of menus more focused on logistics than content. For instance, FILE – PRINTER SETUP allows you to select a default printer. The FILE – PRINT REPORTS option allows you to select an assortment of reports to print simultaneously. You also have the option to output reports to a spreadsheet. Enter the report period in the "Report Period" box. Click on a report link to display a brief description of the report. EDIT – COPY will copy the currently displayed report to the clipboard that may then be pasted into a spreadsheet or word processing program. SIMULATION – allows you quickly logout. OPTIONS – REFRESH DATA allows you to refresh your screen; LOCK DECISIONS allows the team leader to lock all decisions from this location. HELP – HELP GUIDE displays the operations guide from the student manual. (You will probably find the context sensitive Help on the right-hand side of the screen easiest to use.)

Control Buttons

Products

Upgrade

Concepts

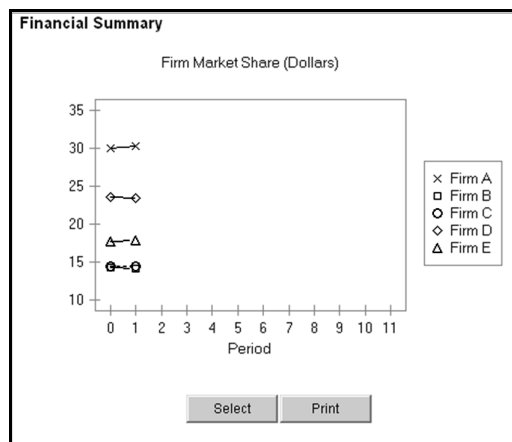
Dev. Center

Restore

Control buttons on Report and Decisions forms perform specific actions. Control buttons are usually found at the bottom or right-hand side of screens. Click on a button to perform the appropriate action. Two particularly useful and common control buttons are [Graph] and [History], both used to analyze data trends. These are explained below.

Graph

Many reports may be graphed to gain historical perspective and to identify important trends. After the graph is displayed, you will often have the option to select a different variable to graph. A sample graph of market share by firm from the COMPETITION - FINANCIALS report is shown below.

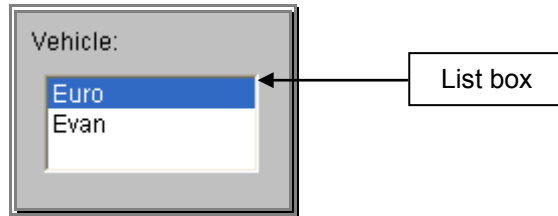


History

The [History] button is another way to see a report on data from past periods. This feature is extremely useful for discovering trends or calculating the impact of particular decisions or competitor actions.

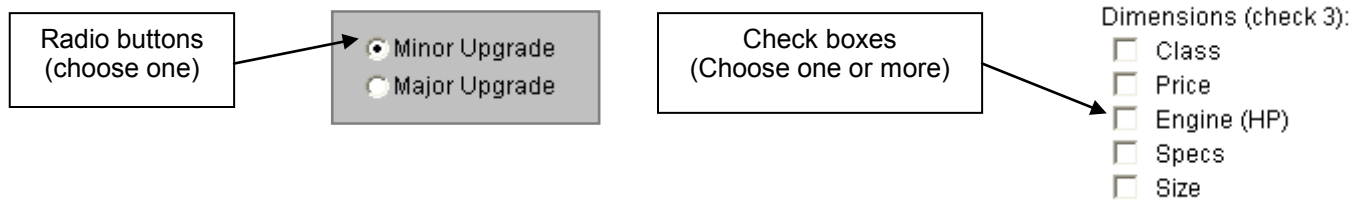
List Boxes (with or without Scroll Bar)

A list box contains a list of choices (with or without a scroll bar). Click on the scroll bar to view all your choices and select by clicking the mouse on the items to include. In some cases, you may be able to select more than one choice. To do this, hold down the Ctrl key while making your choice.



Check Boxes and Radio Buttons

Check boxes and radio buttons allow you to select an option (usually yes or no, true or false). If you have a mouse, click on the check box or radio button.



Navigation System

The SIMULATION MENU is a user-friendly menu structure for navigating key areas of StratSim. The simulation menu contains main headings and when clicked into, a sub-menu appears listing options from which you may select. To select one of the options in the sub-menu, place the mouse arrow on the option and click.

The on-screen menu system is organized much like a situation analysis to provide some structure to your review and planning. Review the reports first, and then begin making decisions. To collapse the options back into the main menu, just click on the main heading name at the top of the sub-menu list.

- | | |
|---------------------------------|--|
| Startup | <ul style="list-style-type: none">• STARTUP provides access to the on-line documentation and help files. The industry briefing and case are a good place to start if you haven't yet read the manual. A handy Glossary is available here as well. |
| Internal | <ul style="list-style-type: none">• INTERNAL contains reports applicable to your firm and includes financial statements, cash flow, and product contribution data. |
| Market | <ul style="list-style-type: none">• MARKET provides information about general economic conditions and customers. This information is available to all participants and most information is free of charge |
| Competition | <ul style="list-style-type: none">• COMPETITION reports contain detailed information about your competitors — products, market share, technology, marketing communications, distribution, production, and financials. These reports are available to all participants and are free of charge. |
| Tools | <ul style="list-style-type: none">• TOOLS contains several market research studies that will help you sort through customer preferences and needs. All of these studies cost money, however, so you will have to decide how much to spend to get this information. |
| International (Optional) | <ul style="list-style-type: none">• INTERNATIONAL provides information about options for sourcing and selling in the international regions. This information is available to all participants and is free of charge. |
| Decisions | <ul style="list-style-type: none">• DECISIONS is where your firm will enter choices for investments in technology, concept creation, product development, consumer and B2B marketing, production, distribution, and financial resources. Once all decisions are made, use the Pro-Forma to project your firm's performance. Then modify your decisions as necessary. The decision summary displays all of your current decisions that can be used to confirm your choices. |
| Decision Analysis | <ul style="list-style-type: none">• ANALYSIS contains Decision Alerts that displays timely messages to your firm and the Pro-Forma analysis tool you can use to help you project your inventory, contribution, income and balance sheet items for the coming year. |

Selecting any of the main menu choices opens up a more detailed sub-menu for access to the individual reports. Examples of these detailed menus are provided on the following pages along with sample reports.

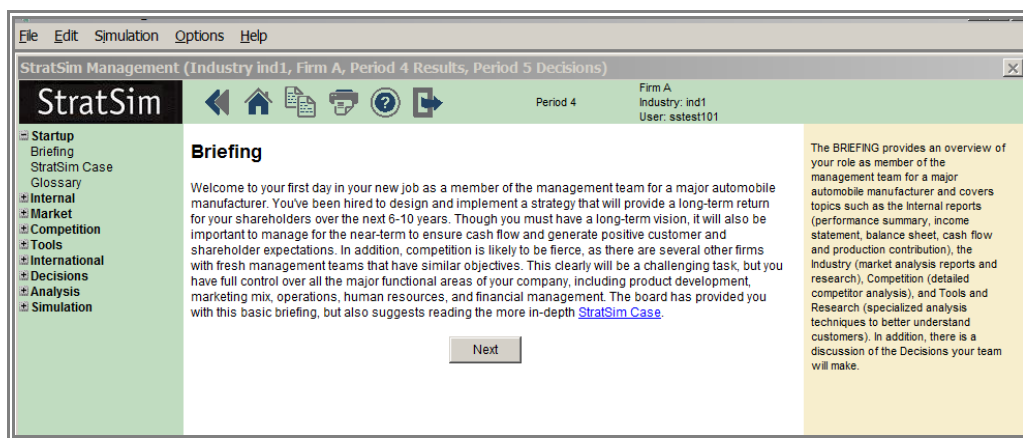
Please note that the values in the reports do not always correspond to the starting situation in the software. They are for demonstration purposes only.

Detail of Menu Options

Each menu option from STARTUP through ANALYSIS is described on the following pages along with a sample screen display for most. The order of the descriptions corresponds to the order of the main menu and secondary menu options within each main menu heading.

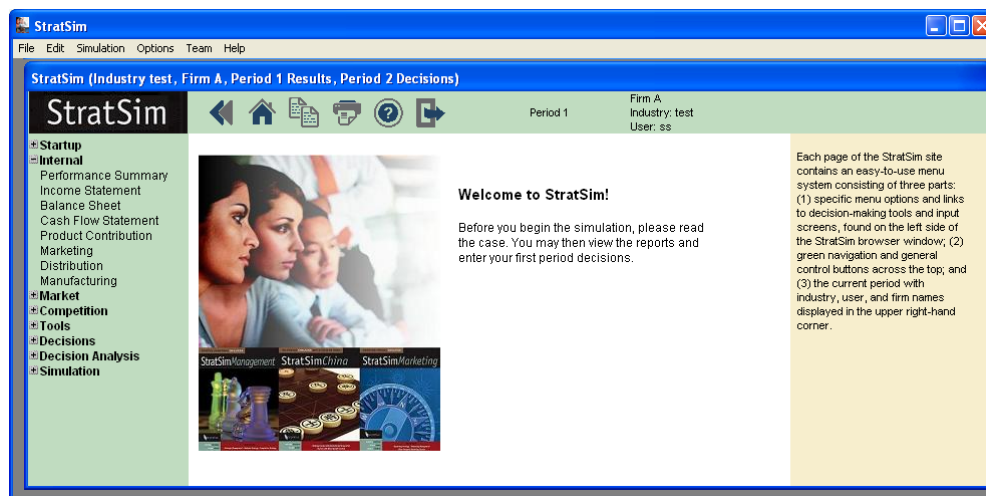
Startup Menu

The STARTUP menu contains helpful overview and navigational information (Briefing, StratSim Case, and Glossary) to review at the beginning of the simulation. Click on one of the menu options on the right to activate that option. For example, click on [Briefing](#) to pull up the StratSim briefing, which offers a quick introduction to your company's situation. Analyzing the industry and the case will help prepare your team for the internal and external environmental factors in the simulation.



Internal Analysis

The INTERNAL menu contains reports applicable only to your firm and includes the performance summary, income statement, balance sheet, cash flow statement, and product contribution. Additional reports applicable to your firm, such as marketing, distribution and manufacturing can also be accessed here. In general, internal analysis should start with comparing actual performance with planned performance. Did the results meet expectations? If not, begin searching for the reasons. The outcome of this analysis may signal a need for a change in strategy.



Second, monitor the status of the firm's resources. Is there enough cash to fuel the strategy? If not, consider alternative sources of additional funds. Recognizing this need early in StratSim is a benefit, as short-term borrowing is generally more expensive than long-term debt or stock offerings.

Part of the simulation experience should be setting objectives that will measure whether your firm is achieving its strategy. These may be goals of profitability levels, market share, stock price, growth, etc. Use these objectives as markers to compare your actual path to your planned path. If you find you are not meeting these objectives, you must realistically face why this is happening and adjust as necessary. Use these objectives as markers to compare your actual path to your planned path. If you find you are not meeting these objectives, you must realistically face why this is happening and adjust as necessary.

Internal – Performance Summary

The PERFORMANCE SUMMARY shows the results on many performance measures for the four most recent years for the firm starting from period 1. This report provides an easy way to compare your firm's progress on some key indicators.

Performance Summary	
Firm D	
	Per. 1
Sales (\$)	\$22,895.3
Sales (000's units)	1,366
Market Share (\$)	24.3%
Market Share (units)	28.0%
Net Income	\$1,523.3
Cum. Net Income	\$1,523.3
Stock Price	\$46.25
Market Value	\$22,431.5
Return on Sales	6.7%
Return on Assets	11.0%
Firm Preference	17.3%
Dealer Rating	64
COGS	72.5%
Capacity Utilization	85.2%
Debt	\$10,351.0
Stock Issue/Purch. %	0.0%

Sales (\$)	• Total manufacturer sales for the firm in dollars (not retail)
Sales (Units)	• Total unit sales for the firm
Market Share (\$)	• Your firm's sales divided by total industry sales (in dollars)
Market Share (units)	• Your firm's sales divided by total industry sales (in units)
Income after taxes	• Total Net Income after taxes
Cumulative Net Income	• Total Net Income after taxes generated since the start of simulation
Stock Price	• Current stock price (in \$)
Market Value	• Total market capitalization of the firm (in \$)
Return on Sales	• Net Income divided by firm sales
Return on Assets	• Net Income divided by total assets
Firm Preference	• Current firm preference
Dealer Rating	• Current average dealer satisfaction results
COGS (%)	• Cost of Goods Sold as a percent of manufacturer's sales
Capacity Utilization	• Production as a percent of total capacity
Debt	• Current short- and long-term debt outstanding
Stock Issued/Purchased %	• Percent of shares issued or purchased (net) divided by total shares outstanding at the start of the simulation.

Internal – Income Statement

The INCOME STATEMENT shows the firm's overall results for the most recent year with major expenditures broken out. Each item is also displayed as a percent of manufacturer sales (not retail sales) for year-to-year comparative purposes.

Income Statement			
Firm E			
Sales	18,414		100.0%
COGS	12,968		70.4%
Gross Margin		5,446	29.6%
Marketing	382		2.1%
Research and Development	629		3.4%
General and Administrative	717		3.9%
Manufacturing Overhead	255		1.4%
Licensing Fees	0		0.0%
Depreciation	761		4.1%
Income from Operations		2,701	14.7%
Extraordinary Items	0		0.0%
Interest Income/Expense	-492		-2.7%
Net Income		2,208	12.0%
Tax	773		4.2%
Income after Tax		1,435	7.8%
Dividends		500	1.19/sh

Sales	Sales are recognized at the time of purchase by the customer. The dollar amount is based on dealer invoice, not retail price or MSRP.
COGS	Cost of goods sold (COGS) is the total variable manufacturing costs (materials and labor) for the product sold. This is based on the R&D unit cost and the cumulative production volume.
Gross Margin	The difference between sales and cost of goods sold. Shareholders often analyze the gross margin % year to year as one measure of profitability.
Marketing	The sum of corporate advertising, public relations, product advertising, product promotion, and sales force.
R&D	Research and Development are the costs associated with product and technology development including process improvement costs.
General & Admin	General and Administration include non-direct costs otherwise not included on this statement.
Manufacturing OH	Manufacturing overhead includes fixed production and plant costs.
Depreciation	The cost associated with depreciating investments in factories over time.
Inc from Operations	Results from deducting expenses from gross margin.
Extraordinary Items	Includes plant and inventory write-offs.
Licensing Fees	If the licensing or B2B option is enabled, this line item displays total licensing fees for your firm.
Interest Inc/Expense	Interest on long and short-term debt.
Net Income	Income from Operations less extraordinary items and interest expense.
Tax	Taxes charged at the rate for your industry environment.
Income After Tax	Net Income less taxes.
(Region) Income	Detailed income statement for the region.
Dividends	The dividends paid to stockholders.
Consolidated Income	If the International module is enabled, this line item displays the consolidated total income after tax of your firm's operations, both domestic and foreign.
Dividends	The dividends paid to stockholders.

Internal – Balance Sheet

The BALANCE SHEET shows the current account balances for assets and liabilities at the most recent year-end. A sample screen is shown below.

Balance Sheet			
Firm B			
Assets	\$Mill.	Liabilities	\$Mill.
Cash	224	Accounts Payable	495
Receivables	1,517	Short Term Debt	1,109
Inventory	581	Long Term Debt	0
Plant and Equip.	2,936	Total Liabilities	1,604
Depreciation	-881	Stock (\$1 par)	340
		Retained Earnings	2,434
		Total Equity	2,774
Total Assets	4,378	Total Liab. and Equity	4,378
History			

Asset Categories:

- | | |
|------------------|---|
| Cash | • In StratSim, cash represents the funds currently available to you for investment. The current balance in cash equals last year's cash balance plus income from operations, less plant investments, plus any adjustments from financial operations, and any changes in receivables and payables. |
| Receivables | • Invoices still not paid by dealerships. |
| Inventory | • Current value of finished inventory. |
| Plant and Equip. | • Original value of the plant and equipment used in production of the vehicles. This includes retooling investments. |
| Depreciation | • Plant, equipment, and retooling costs are spread over 10 years using straight-line depreciation. This is the accumulated depreciation on the assets. |

Liability and Equity Categories:

- | | |
|-------------------|---|
| Accts Payable | • Amount currently owed to vendors. |
| Short-Term Debt | • Outstanding short-term lines of credit used to fund on-going operations. Normally these loans result from underestimating cash needs in the current year. |
| Long-Term Debt | • Face value of long-term bonds that were issued. |
| Stock | • Original value of any stock issued. |
| Retained Earnings | • Accumulated net income from previous years. |

Please refer to DECISIONS – FINANCING in this section of the manual for more information on debt and stocks.

Internal – Cash Flow Statement

The CASH FLOW STATEMENT shows the sources and uses of the firm's cash. The changes in the amount of cash in the firm can be calculated based on changes in income from operations, investments, financial operations, and adjustments from changes in the balance sheet.

Cash Flow Statement	
Firm E	
	\$Mill.
Starting Cash	112
Income from Operations	2,701
Plant Investment	0
Financial Operations	-3,312
Adjustments	888
Ending Cash	388
History	

- | | |
|------------------------|---|
| Income from Operations | • Comes from the Income from Operations item on the Income Statement. |
| Plant Investment | • Includes any outlays for increases in capacity and retooling costs. |
| Financial Operations | • Include proceeds from short-term loans and bonds or stock issues less interest and dividends paid (see following page). |
| Adjustments | • Includes changes in the following asset and liability accounts: accounts receivable, inventory, plant depreciation, and accounts payable. |

All four of these categories can be viewed in detail by clicking on the corresponding underlined link. As an example, a sample [Adjustments](#) report is shown below that illustrates the impact of changes in receivables, payables, and inventory on cash flow.

Adjustments: Firm E		
Prev. Receivables	2,265	
Curr. Receivables	2,394	
Receivables Adj.		-129
Prev. Inventory	1,293	
Curr. Inventory	1,066	
Inventory Adj.		227
Prev. Accounts Payable	880	
Curr. Accounts Payable	908	
Accounts Payable Adj.		28
Depreciation		761
Total		888
Note: Amounts in millions		
Print		

Internal – Product Contribution

The PRODUCT CONTRIBUTION report provides financial results at the product level. This report provides insights into pricing and costing issues at the product level. Note, however, that it does not include any allocated overhead costs, only variable costs (COGS) and marketing costs directly attributable to a product.

Product Contribution							
Firm A							
Vehicle	Units (000's)	Dealer Sales (mill.)	Direct Sales (mill.)	COGS (mill.)	Gross Margin (mill.)	Adv Promo (mill.)	After Mktg (mill.)
Alec	581	\$8118	\$0	\$6028	\$2090	\$60	\$2030
Alfa	315	\$6756	\$0	\$4326	\$2430	\$120	\$2310
Awesome	310	\$5642	\$0	\$4286	\$1356	\$90	\$1266
Total	1,207	\$20516	\$0	\$14640	\$5877	\$270	\$5607
Note: Dollar amounts are in millions.							
Per Unit Contribution							
Vehicle	Per Unit Revenue	Per Unit COGS	Per Unit Margin	Margin Pct.	Adv Promo	Per Unit Contrib.	Contrib. Pct.
Alec	\$13970	\$10373	\$3597	26%	\$103	\$3494	25%
Alfa	\$21435	\$13724	\$7710	36%	\$381	\$7330	34%
Awesome	\$18188	\$13817	\$4371	24%	\$290	\$4081	22%
Total	\$17005	\$12134	\$4871	29%	\$224	\$4647	27%
Note: Dollar amounts are per unit.							
				Graph	History		

There are two different analyses within this report. The top box is overall contribution based on total revenues for the product rather than a per unit basis. Thus, “Dealer Sales” equals the price of the product to the dealer multiplied by the number of units sold. The sum of the “Dealer Sales” column equals the “Sales” value from the income statement. Sales made other than through your own dealers will appear in the "Direct Sales" column. The cost of goods sold (COGS) and expenditures on advertising and promotion are then subtracted to calculate the overall contribution of each product.

The lower box analyzes the products on a per unit basis. Any direct sales will be included in these figures, so remember that this analysis looks at your average revenue and margin over all sales. The “Margin Pct.” and “Contrib. Pct.” columns are helpful measures for pricing.

Internal – Marketing

The INTERNAL MARKETING report provides a summary of your marketing expenditures for your company along with value market share and days inventory.

Marketing Detail								
Firm A								
Consumer	Budget (mill.)		Company Owned /Fleet		Budget (mill.)			
Regional Corp. Adv.	\$100		Direct Sales Force		\$0			
Direct Mail	\$2		Direct Mail		\$0			
Public Relations	\$6							
Total	\$108		Total		\$0			
Vehicle	Val Mkt Share	MSRP	Dealer Disc.	Avg Sell Price	Adv. (mill.)	Adv. Theme	Promo. (mill.)	Days Inv.
Alec	9.0%	\$15,351	9.0%	\$14,572	\$40	Styling	\$20	30
Alfa	7.8%	\$24,084	11.0%	\$23,121	\$80	Interior	\$40	30
Awesome	6.7%	\$21,149	14.0%	\$20,426	\$60	Quality	\$30	30
Total					\$180		\$90	

Links to the product detail (e.g. [Alec](#)) are also available as shown below which provide more detail regarding product pricing and performance.

Product Detail			
Alec			
Manufacturer	Firm A	MSRP	\$15,351
Platform	No Change	Dealer Invoice	\$13,970
Model Class	Economy	Avg. Retail Price	\$14,572
Engine (HP)	135	Advertising (mill)	\$40.0
Size Position	14	Advertising Theme	Styling
Interior Rating	2	Promotion (mill)	\$20.0
Styling Rating	1	Units Sold (000's)	581
Safety Rating	3	Value Mkt Share	9.0%
Quality Rating	2	Share of Class	63.5%
Print		Trend	

You may find this same information on your competitors under the COMPETITION – MARKETING COMMUNICATIONS menu.

Internal – Distribution

The INTERNAL DISTRIBUTION report summarizes information relating to your dealer network, including the coverage ratio, planned openings, sales and support per dealer, and dealer ratings. Full coverage represents the number of sales areas in each region. Thus, coverage of 45% would imply that 45% of the sales areas are covered in a particular region.

Gross/Dealer represents the amount of money (gross) that the average dealer in a region has to operate their business. This equals the difference between the dealer invoice (what the dealer pays for the vehicle) and the actual retail price for all vehicles sold in their dealership. These are, in effect, the revenues for the dealership. The more revenues for the dealership, the better salespeople and support staff they can hire, the more they can reinvest in their facilities, etc. Thus, this gross/dealer is a good indicator of their success as a business, which, along with training and support, will likely translate into higher dealer ratings.

Distribution Detail					
Firm A					
	North	South	East	West	Total
Full Coverage	200	250	150	200	800
Established Dealers	120	120	120	120	480
Coverage	60%	48%	80%	60%	60%
Planned Openings	0	0	0	0	0
Support/Dealer (000's)	\$270.8	\$270.8	\$270.8	\$270.8	\$270.8
Units/Dealer	2,547	2,329	2,593	2,586	2,514
Sales/Dealer (mill.)	\$46.5	\$42.7	\$47.7	\$47.2	\$46.0
Service/Dealer (mill.)	\$0.9	\$0.9	\$1.0	\$1.0	\$0.9
Gross/Dealer (mill.)	\$3.6	\$3.4	\$3.8	\$3.8	\$3.7
Dealer Rating	61	61	62	62	62

Graph

The dealer rating is a customer satisfaction index from a leading market research company and ranges from 1-100, with 100 corresponding to highest satisfaction. Dealer ratings provide insight into the success of dealerships. The success and coverage of your dealerships is an important aspect of your overall firm's success. Your firm should think of your dealership network as a key strategic partner who shares in your success. Generally, the more successful your dealerships are, the more successful you will be, and vice versa.

You may find this same information on your competitors under the COMPETITION – DISTRIBUTION menu.

Internal – Manufacturing

The INTERNAL MANUFACTURING report provides additional information by product line such as actual production, sales, inventory and days inventory. “Days inventory” is an estimate of the number of days of inventory available at year-end based on yearly sales and is derived by the formula $(365 \times \text{units inventory} / \text{sales})$. Generally auto companies aim for approximately 30 days of inventory, but this may vary based upon development / upgrade plans for a particular vehicle.

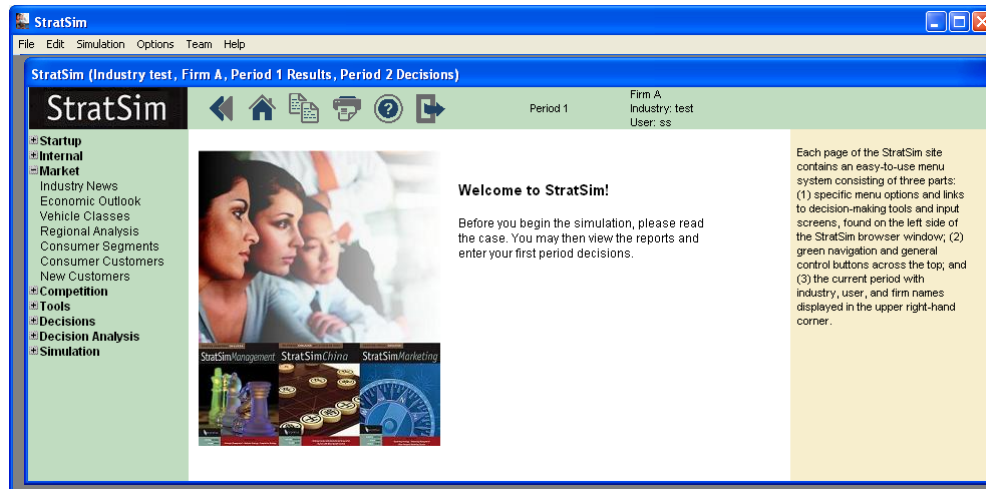
Manufacturing Detail					
Firm A					
Capacity (000's)		1,200			
Coming on Line (000's)		0			
Vehicle	Prod. (000's)	Sales (000's)	Inv. (000's)	Days Inv.	Comment
Alec	540	581	48	30	
Alfa	292	315	26	30	
Awesome	311	310	25	30	
Total	1,143	1,207	99	30	
Graph					

In the comments field, there are a number of messages that may appear: "some shortages" means less than 10% lost sales, "significant shortages" are 10-30%, and "extreme shortages" are over 30%. In addition, you may see a note if a product is upgraded or new, or if sales have exceeded planned production.

You may find this same information on your competitors under the COMPETITION – MANUFACTURING menu.

Market Analysis

The MARKET menu options provide information about general economic conditions and customers. The report includes several tools that will help you sort through consumer preferences and needs. This information is available to all participants. The market analysis menu structure is shown below.



The overall goals in market analysis are to:

- Identify the various market segments, their needs, and their attractiveness.
- Decide the segments your firm should serve based on attractiveness and your firm's positioning and resources.
- Determine the key success factors for gaining market share in your target segments.
- Identify the actions necessary for your firm to take in order to achieve your objectives.

Market – Industry News

INDUSTRY NEWS highlights *significant events* that occurred during the most recent simulated period. This includes product launches, new customers identified in the market, licensing agreements, drastic changes in stock prices, and other news of general interest. Less important information is not included in the report, such as minor fluctuations in stock prices. Links to important information, such as new product attributes, are embedded in the text. New vehicle class launch plans of your competitors are announced in industry news during the period before the launch.

Industry News

- Gas prices and economy fairly stable which should provide a good environment for vehicle sales
- Firm D's market share fell from 28.0% to 26.3%.
- Firm E's stock price rose 7 to \$50.
- Industry marketing expenditures were flat at \$1,894 million.

Print

Though the INDUSTRY NEWS report is rather brief at the beginning of the simulation, you can be assured this screen gets considerably longer as the game progresses!

Market – Economic Outlook

The ECONOMIC OUTLOOK report provides a very brief overview of the general economic conditions for the current year, past year, and a forecast for the coming year. Economic strength (as measured by GDP growth) and low interest rates typically have a positive impact on car sales. The inflation rate should be taken into consideration when analyzing costs and adjusting prices as the COGS of a vehicle will increase by the inflation rate without taking into consideration other factors. The cash rate is the interest rate paid on short-term cash balances. As the economy changes and interest rates change, the rates on short-term loans and new long-term loans will also change.

Economic Outlook – Period 1			
Indicator	Per. 0 (Last)	Per. 1 (Current)	Per. 2 (Forecast)
Real GDP Growth	1.0%	1.0%	1.5%
Inflation	2.5%	2.5%	1.5%
Prime Rate	5.0%	5.0%	5.0%
Cash Rate	3.0%	3.0%	2.0%
Materials Cost	+2.5%	+2.5%	+1.0%
Labor Cost	+2.5%	+2.5%	+2.5%
Gas Price (\$/gal)	\$3.00	\$3.00	\$3.15
Dealer Car Sales (000's)	2,735	2,785	2,721
Dealer Truck Sales (000's)	1,407	1,498	1,694
GraphHistory			

“Car Sales” equals the total sales of economy, family, luxury, sports, and AEV classes. “Truck Sales” equals the sales of minivan, truck, utility, and delivery classes. Sales by vehicle class can be found under the VEHICLE CLASSES menu choice under MARKET.

The [Graph] button displays a graph of selected economic data from this report. The [History] button allows you to view the report for past periods.

Market – Vehicle Classes

The VEHICLE CLASSES report displays industry sales information broken down by vehicle class. Sales at the manufacturer and retail level are provided in dollars. Units sold and sales growth for the past year are also displayed. Basic competitive information such as the number of vehicles within a class and the sales leader are provided. Click on the [Graph] button for a graph of unit sales by class.

Vehicle Classes – Period 1						
Class	Mfr Sales	Retail Sales	Unit Sales	%Chg (units)	Num. Veh.	Leader
Economy	\$11,544	\$12,034	914	-4%	2	Alec
Family	\$31,218	\$33,491	1,439	+5%	5	Efizz
Luxury	\$10,159	\$11,449	291	+8%	2	Beaut
Sports	\$4,289	\$4,654	141	+4%	1	Buzzy
AEV	\$0	\$0	0	NA	0	
Minivan	\$3,810	\$4,086	181	+4%	1	Camini
Utility	\$13,164	\$14,719	640	+7%	2	Euro
Truck	\$12,252	\$13,480	677	+6%	2	Detonka
Delivery	\$0	\$0	0	NA	0	
Total	\$86,436	\$93,914	4,283	+3%	15	Alec

Note: Dollar amounts are in millions, units in thousands.

[Graph](#) [History](#)

The link to a vehicle class (such as [Economy](#)) provides detailed information on marketing issues within that class including share of class, overall share for the vehicle, MSRP, advertising budget and theme, and promotional budget. A sample screen for the CLASS DETAIL is shown below.

Vehicle Class Detail						
Economy Class (description)						
Vehicle	Share of Class	Overall Share	MSRP	Adv. (mill.)	Adv. Theme	Promo. (mill.)
Alec	67%	16%	\$13,252	\$40	Styling	\$20
Delite	33%	8%	\$11,080	\$40	Quality	\$20

[Graph](#) [Map](#) [Print](#) [Next](#)

[Graph] provides a graph of market share by vehicle class over time.

[History] allows you to view the report from past periods.

[Map] creates a positioning map of size and price for the vehicle class and shows the expected price and size ranges for that class as described on the following page.

[Print] will print this report.

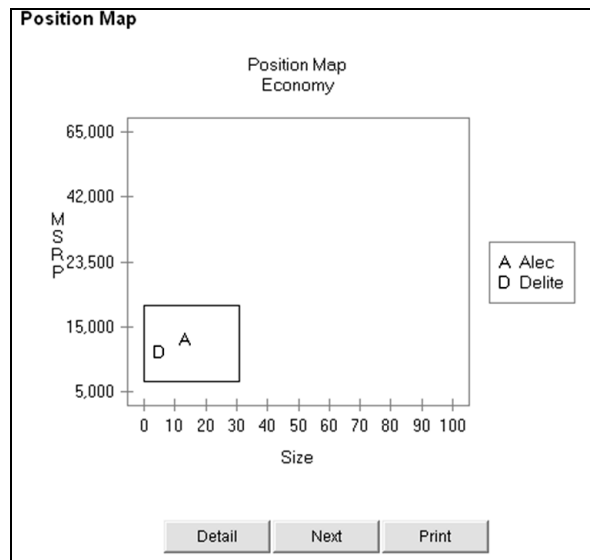
[Next] takes you to the next vehicle class listed on the VEHICLE CLASSES report.

[Trend] displays the PRODUCT CHARACTERISTICS HISTORY for that product

[Current] displays current product detail.

Market – Vehicle Classes – Choose Class – [MAP]

The POSITIONING MAP provides a visual representation of expected size and price ranges for a particular class, as well as how vehicles in that class are positioned on these two dimensions.



In the above example, the box denotes the expected price and size ranges for the economy class. The two economy class vehicles, Alec and Delite, are marked A and D and are listed in the legend in the order of sales. Thus, the sales leader for this class is Alec. Based on this plot, one can say that Alec is larger and higher priced than the Delite, that the expected price of an economy vehicle appears to be under \$20,000, and that the expected size of an economy vehicle is less than 30.

[Detail] will return you to the CLASS DETAIL report.

[Next] will take you to the next positioning map for vehicle class listed on the VEHICLE CLASSES report.

[Print] will print this report.

Note: Positioning maps can also be viewed at the customer level which provides more specific information for that customer rather than for the class overall.

Market – Regional Analysis

The REGIONAL ANALYSIS report provides an overview of sales in units broken out by region. This information is useful when deciding on distribution issues. A sample screen is shown below.

Regional Analysis					
Unit Sales (000's) by Region					
Class	North	South	East	West	Total
Economy	294	285	303	319	1,201
Family	314	325	339	337	1,315
Luxury	61	70	91	85	306
Sports	23	29	35	35	122
Minivan	118	111	109	105	443
Utility	193	210	162	181	747
Truck	172	226	155	195	749
Total	1,175	1,256	1,194	1,257	4,882

History

Click on a [vehicle class](#) link, such as [Economy](#) to show market shares of vehicles by region as shown below in the REGION DETAIL report.

Region Detail				
Unit Market Shares by Region: Economy				
Vehicle	North	South	East	West
Total Units	294	285	303	319
Alec	75%	71%	63%	59%
Delite	25%	29%	37%	41%

Print

Next

Click on a [product name](#) link (i.e., [Delite](#)) to display the Product Detail report as shown below. [Trend] displays the PRODUCT CHARACTERISTICS HISTORY for that product.

Product Detail			
Delite			
Manufacturer	Firm D	MSRP	\$11,080
Platform	No Change	Dealer Invoice	\$10,083
Model Class	Economy	Avg. Retail Price	\$10,412
Engine (HP)	85	Advertising (mill)	\$40.0
Size Position	5	Advertising Theme	Quality
Interior Rating	1	Promotion (mill)	\$20.0
Styling Rating	1	Units Sold (000's)	399
Safety Rating	1	Value Mkt Share	4.1%
Quality Rating	1	Share of Class	33.2%

Print

Trend

Market – Consumer Segments

The CONSUMER SEGMENTS report provides the overall units sold to each consumer segment, the percent change in sales during the most recent period, and the percent of each segment captured by each firm. In StratSim, there are five consumer segments labeled 1-5, and three business-to-business or fleet segments, labeled 6-8. Within each segment, there are multiple customers with somewhat different needs. More information on these customers is available in the CONSUMER CUSTOMERS report that is also described on the following page.

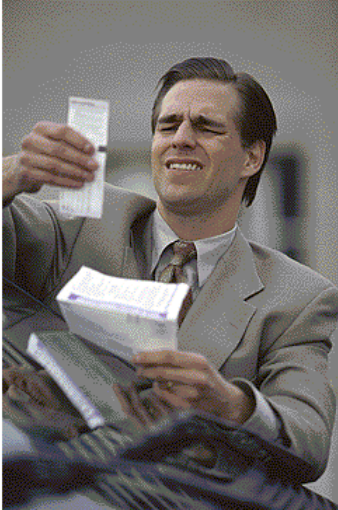
Consumer Segments							
Segment	Units (000's)	Chg	A	B	C	D	E
Value Seekers(1)	955	+3%	28.2%	0.4%	1.9%	40.7%	28.9%
Families(2)	1,904	+2%	49.5%	0.9%	9.6%	26.9%	13.1%
Singles(3)	820	+5%	37.0%	11.8%	3.1%	37.5%	10.6%
High Income(4)	637	+3%	11.9%	21.0%	38.9%	21.2%	7.0%
Enterprisers(5)	567	+6%	18.2%	25.3%	6.8%	4.2%	45.5%
Total	4,882	+3%	34.7%	8.1%	10.5%	28.0%	18.7%

History

There are also links to descriptions of each segment ([Value Seekers](#) through [Enterprisers](#)). Please refer to segment descriptions for more information on each segment, but a sample screen is shown below.

Value Seekers

Value Seekers have basic transportation needs. They use their vehicle to commute to work, or perhaps as a basic all-purpose vehicle. However, they don't have as much disposable income as other segments and are, therefore, more price sensitive. Safety and quality are especially important to these buyers. Vehicle classes that may be of particular interest to value seekers include economy and truck.



Market – Consumer Customers

The CONSUMER CUSTOMERS report summarizes customer detail information, displaying the overall sales to each customer, the percent change in sales during the most recent period, the forecast for next year and the leading product (unit basis). The information in this report helps you gauge the relative demand by each customer segment so that you can make a more informed decision about who to target.

Consumer Customers						
Customer	Mfr Sales	Retail Sales	Unit Sales	%Chg (units)	Forecast (units)	Leader
1E \$	\$5,841	\$6,045	527	+1%	505	Delite
1T \$	\$7,989	\$8,750	428	+6%	434	Estruck
2E \$	\$7,296	\$7,571	608	+1%	583	Alec
2F \$	\$17,900	\$19,263	867	+3%	864	Defy
2M \$	\$8,846	\$9,583	428	+3%	416	Evan
3S \$	\$4,195	\$4,557	172	+3%	168	Buzzy
3T \$	\$4,737	\$5,246	276	+5%	278	Detonka
3U \$	\$7,087	\$7,828	372	+6%	377	Awesome
4F \$	\$11,278	\$12,148	478	+3%	473	Cafav
4L \$	\$5,472	\$6,253	160	+3%	157	Climax
5L \$	\$5,540	\$6,243	186	+3%	183	Beaut
5U \$	\$8,078	\$8,958	382	+7%	390	Euro
Total	\$94,261	\$102,447	4,882	+3%	4,828	

Note: Dollar amounts are in millions, units in thousands. Cost of Customer Detail is \$25 thousand per report.

History

You can choose a customer link ([1E](#) through [5U](#)) to display customer detail information, described on the following page. This detail costs \$25K per customer, but provides important market information about customer needs and product preferences. It will be up to your team to decide which studies are worth purchasing. Once a study has been purchased (the \$ will be deleted to indicate that it has been purchased), it can be viewed again anytime that period at no charge. Alternatively, some of this information can be gathered using the marketing research tools, as in CONJOINT ANALYSIS.

Market – Consumer Customers (\$) – Customer (pick one)

The CUSTOMER DETAIL report contains all of the information relevant to a particular customer's purchase decisions in one report and costs \$25K per customer. In addition to the customer units purchased, growth rate, and expected size, price, and engine ranges, this report also provides customer hot buttons and price sensitivity. Below the customer description is a grid of the leading competitors for that particular customer. This grid contains all vehicles in the primary or secondary class or vehicles with greater than 5% of market share.

Customer Detail
Customer: 1E
Desired Class: [Economy](#)
Units Purchased (000's): 527
Chg. from Prev. Year: +1%
Projected Demand: 505
Expected Price Range: \$9,000-\$13,000
Preferred Size Range: 1-15
Preferred Engine (hp): 75-125
Hot Buttons: Quality, Safety
Price Sensitivity: High

Vehicle	Class	Unit Share	Size	MSRP	Eng (HP)	Ad Aware	Adv (mill)	Adv Theme	Promo (mill)
Delite	Economy	52%	5	\$11,080	85	46%	\$40	Quality	\$20
Alec	Economy	48%	13	\$13,252	130	50%	\$40	Styling	\$20
Other		0%							

Taking a closer look at the CUSTOMER DETAIL report above provides some valuable information. As you may recall from the case description, a 1E customer is a value seeker with a desired class of economy cars. Units purchased are the number of vehicles purchased by the customer. The size, price and engine ranges provide some guidance as to what the customer expects on those dimensions. The hot buttons and price sensitivity help you understand more about what the customer looks for in a car and how much they are willing to pay.

[Region] allows you to display the information by selected region.

[Map] creates a positioning map of size and price for the customer and shows the customer preferred area or “consideration set” and the location of the vehicles competing in that space. This is similar to the positioning map already discussed for the VEHICLE CLASSES report, but now focused on a particular customer rather than a vehicle class.

[Price/Sales] will display the relationship between price and the number of units sold for vehicles competing for this customer.

[Awareness/Sales] will display the relationship between units sold and advertising awareness for the vehicles preferred by the selected customer.

[Print] will print this report.

Be careful not to use any one of these relationship maps as the single predictor of sales. All must be considered, along with other factors such as the various vehicle characteristics (interior, styling, safety, and quality), distribution, and others, to fully understand the sales results. However, the maps can be quite helpful in visualizing some of the key variables that impact market share by segment.

Market – New Customers

The NEW CUSTOMERS report provides some initial data on 3 potential emerging customers, as shown below. In the example below, the High Income segment that would like to purchase a minivan (4M) is estimated to be the largest potential new customer in terms of units sold. The expected price range, vehicle size range, and most important attribute are also listed.

New Customers – Period 1						
Research has identified the top 3 potential new customer segments.						
Cust.	Segment	Vehicle Class	Est. Units (000's)	Exp. Price Range	Approx. Veh. Size	Most Important Attribute
4M	High Income(4)	Minivan	150-230	\$26-38k	55-75	Interior
4S	High Income(4)	Sports	20-40	\$50-76k	45-65	Styling
5A	Enterprisers(5)	AEV	60-100	\$22-34k	30-50	Styling

New customers may be looking for a new vehicle class, such as an AEV, or a significantly different configuration of an existing vehicle class. If a firm introduces such a vehicle that “excites” these customers, the new customer may “pop”, creating new demand in the marketplace. As a rule in StratSim, at most, only one new customer can “pop” or emerge each period. Additional new customer opportunities may be identified as the simulation progresses.

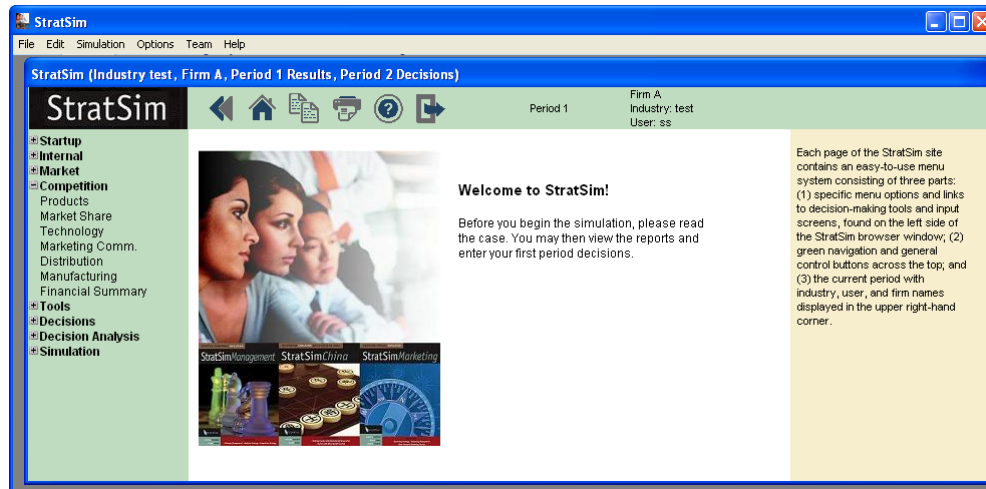
It is important to understand that there are no guarantees with introducing products into new markets and StratSim reflects this risk.

In order for one of these emerging customers to generate significant sales, the vehicle must be designed to meet the needs for that customer. If there’s not enough differentiation in the offering or support of the new vehicle, it will not create the necessary “buzz” in the marketplace. It is the combination of the unmet needs and the successful development and marketing of a vehicle that makes a customer emerge as a viable market.

The links to segments and vehicle class will provide a detailed description.

Competitive Analysis

COMPETITION reports contain detailed information about your competitors — products, market share, technology, marketing communications, distribution, production, and financials. These reports are available to all participants. The screen below shows the reports available under the COMPETITION menu.



The overall goals of competitive analysis are:

- Identify the firms that are competing for your target markets/segments.
- Analyze their strengths and weaknesses.
- Attempt to determine the competitor's strategy and what potential moves may be the result of that strategy.
- Determine the best approach for your firm to use to defend against the competitor's strategy while remaining consistent with your own strategy.

Competition – Products

The PRODUCTS report provides side-by-side comparisons of the main characteristics of each product in the market. Each vehicle's class, price, size, engine, interior, styling, safety and quality are displayed along with its overall market share. Clicking on a link sorts the report by [Vehicle Name](#), [Class](#), [Units Sold](#), [Price](#), or [Size](#). A sample screen is shown below.

Products									
Vehicle	Class	Unit Share	MSRP	Size	Eng. (HP)	Int	Styl	Safe	Qual
Alec	Economy	16.4%	\$13,252	13	130	1	1	3	1
Alfa	Family	9.8%	\$22,696	29	165	1	1	3	2
Awesome	Utility	8.4%	\$21,499	40	220	1	1	1	1
Beaut	Luxury	3.5%	\$37,022	62	240	3	4	2	2
Boffo	Family	2.1%	\$31,855	49	200	4	3	2	2
Buzzy	Sports	2.5%	\$32,496	57	185	4	3	2	2
Cafay	Family	4.0%	\$28,428	49	165	4	2	2	2
Camini	Minivan	3.7%	\$23,065	82	200	2	1	1	1
Climax	Luxury	2.8%	\$44,359	74	240	4	2	2	2
Defy	Family	11.0%	\$24,743	44	165	2	1	3	1
Delite	Economy	8.2%	\$11,080	5	85	1	1	1	1
Detonka	Truck	8.8%	\$19,299	64	185	1	1	1	1
Estruck	Truck	6.5%	\$21,716	73	280	1	1	1	2
Euro	Utility	6.9%	\$25,870	59	200	1	3	2	1
Evan	Minivan	5.3%	\$24,668	83	195	1	1	3	2

History

In-depth information on a vehicle is viewed in the PRODUCT DETAIL report by clicking on the vehicle name (such as [Alec](#) or [Boffo](#)). A sample product detail screen is shown below. This report includes all relevant information on a particular vehicle, including all the attributes, prices, and marketing data. Clicking on [Trend] displays the PRODUCT CHARACTERISTICS HISTORY for that product.

Product Detail			
Boffo			
Manufacturer	Firm B	MSRP	\$31,855
Platform	No Change	Dealer Invoice	\$28,033
Model Class	Family	Avg. Retail Price	\$29,858
Engine (HP)	200	Advertising (mill)	\$60.0
Size Position	49	Advertising Theme	Quality
Interior Rating	4	Promotion (mill)	\$40.0
Styling Rating	3	Units Sold (000's)	102
Safety Rating	2	Value Mkt Share	3.0%
Quality Rating	2	Share of Class	7.8%

Print Trend

Competition – Market Share

The MARKET SHARE report displays firm market share by vehicle class. Units sold and sales growth for the past year are also displayed by class. A blank spot in the grid indicates that a firm does not currently offer a vehicle in that class. Click on [Graph] to display a graph of unit sales by class. The [History] button allows you to view past period reports.

Market Share by Class – Period 1							
Class	Units (000's)	Chg	Firm A	Firm B	Firm C	Firm D	Firm E
Economy	914	-4%	63.5%			36.5%	
Family	1,439	+5%	21.9%	6.8%	13.3%	29.0%	29.1%
Luxury	291	+8%		59.2%	40.8%		
Sports	141	+4%		100.0%			
AEV	0	NA					
Minivan	181	+4%			100.0%		
Utility	640	+7%	48.5%				51.5%
Truck	677	+6%				55.8%	44.2%
Delivery	0	NA					
Total	4,283	+3%	28.2%	9.6%	11.5%	26.3%	24.4%

Graph

History

The link to a vehicle class (such as [Economy](#)) provides detailed information on marketing issues within that class including share of class, overall share for the vehicle, MSRP, advertising budget and theme, and promotional budget. A sample screen for the Economy class MARKET SHARE DETAIL is below.

Market Share Detail						
Economy Class (description)						
Vehicle	Share of Class	Overall Share	MSRP	Adv. (mill.)	Adv. Theme	Promo. (mill.)
Alec	67%	16%	\$13,252	\$40	Styling	\$20
Delite	33%	8%	\$11,080	\$40	Quality	\$20

Graph

Map

Print

Next

[Graph] provides a graph of market share by vehicle over time for that class.

[Map] creates a positioning map of size and price for the vehicle class and shows the expected price and size ranges for that class.

[Print] will print this report.

[Next] will take you to the next vehicle class listed on the VEHICLE CLASSES report.

Clicking on the vehicle name link will provide more detailed information about the vehicle.

Competition – Technology

The TECHNOLOGY CAPABILITIES report summarizes the current technological capabilities of each company. These values represent the maximum level the firm can achieve in the current period using platform development on interior, styling, safety, and quality. The maximum feasible limit for each of these characteristics is also shown. The maximum limit may change over time if new breakthroughs are discovered in the particular technology and represents the highest value any firm can achieve through investments in technology capabilities.

Clicking on the links to one of the firms ([Firm A](#) through [Firm E](#) in the sample screen below) displays historical information about a firm's investments in technology capability and may give insight as to possible future generations of vehicles from that firm.

Technology Capabilities				
Firm Ratings (1=low capability)				
	Interior	Styling	Safety	Quality
Max. Feasible	9	11	9	11
Firm A	4	5	4	6
Firm B	6	8	5	7
Firm C	6	7	5	7
Firm D	4	5	4	5
Firm E	4	5	4	5

Tech Dim	Considerations
Interior	flexibility of cargo space
Styling	general curb appeal, styling, handling, finish
Safety	structural design, braking system, safety features
Quality	overall reliability, durability, consistency of products

History

In the example above, the most appealing product Firm A can create is one with interior of 4, styling of 5, safety of 4, and quality of 5 out of a maximum of 9, 11, 8, and 10, respectively. All customers find higher values in these areas more appealing than lower values. Should a firm consider the investment worthwhile, increases in ratings can be achieved through investments in technology capabilities.

Definitions:

- Interior: Flexibility of the cargo space
- Styling: General curb appeal, styling, handling, finish
- Safety: Structural design, braking systems, safety features
- Quality: Overall reliability, durability, consistency of product

Competition – Marketing Communications

The MARKETING COMMUNICATIONS report provides information on marketing expenditures at the firm level. Brand advertising and brand promotion are the total of advertising and promotion of individual products. Market shares and firm preference are also displayed to aid in analysis.

Marketing Communications							
Firm	Corp. Mktg	Brand Adv.	Brand Promo.	Total Comm.	Val Mkt Share	Unit Share	Firm Pref.
Firm A	\$108	\$180	\$70	\$358	28.6%	34.7%	20.9%
Firm B	\$109	\$180	\$90	\$379	12.4%	8.1%	21.7%
Firm C	\$106	\$180	\$90	\$376	14.4%	10.5%	19.8%
Firm D	\$105	\$180	\$70	\$355	24.3%	28.0%	17.3%
Firm E	\$112	\$180	\$90	\$382	20.3%	18.7%	20.2%

Note: Dollar amounts are in millions.

[Graph](#) [History](#)

View previous MARKETING COMMUNICATION reports by clicking [History] and entering the desired time period. [Graph] creates historical graphs of communications variables such as marketing expenditures by firm and firm preference. Clicking on the firm links ([Firm A](#) through [Firm E](#)) produces detailed marketing reports for each firm including product marketing mix decisions (shown below).

Marketing Detail								
Firm D								
Consumer	Budget (mill.)		Company Owned Fleet		Budget (mill.)			
Regional Corp. Adv.	\$100		Direct Sales Force		\$0			
Direct Mail	\$0		Direct Mail		\$0			
Public Relations	\$5							
Total	\$105		Total		\$0			
Vehicle	Val Mkt Share	MSRP	Dealer Disc.	Avg Sell Price	Adv. (mill.)	Adv. Theme	Promo. (mill.)	Days Inv.
Delite	5.6%	\$8,333	9.0%	\$7,861	\$40	Quality	\$20	30
Defv	8.8%	\$25,261	13.0%	\$23,580	\$80	Styling	\$40	30
Detonka	7.2%	\$12,957	12.0%	\$12,557	\$60	Styling	\$30	30
Total					\$180		\$90	

[Print](#) [Next](#)

Links to the product detail (e.g. [Alec](#)) are also available in the MARKETING DETAIL report for a particular firm.

Competition – Distribution

The DISTRIBUTION report summarizes information relating to the dealer network for all the firms — number of dealerships, previous number of dealerships, scheduled openings, spending on dealer training/support, dealer ratings, inventory, and days left in inventory. The “Dealer Rating” is a customer satisfaction index from a leading market research company and ranges from 1-100, where 100 corresponds to highest satisfaction. Dealer ratings provide insight into the success of dealerships. A sample screen is shown below.

Distribution							
Firm	Curr. Dealers	Prev. Dealers	Planned Openings	Training (mill.)	Dealer Rating	Inv. (000's)	Days Inv.
Firm A	520	520	0	\$30	62	139	30
Firm B	280	280	0	\$25	65	32	30
Firm C	365	365	0	\$25	63	53	38
Firm D	420	420	0	\$25	64	130	35
Firm E	395	395	0	\$25	66	75	30

Graph

History

From here, historical data of distribution variables can be viewed by period [History] or analyzed over time [Graph]. Additionally, each firm’s distribution details are available by clicking on the firm link (e.g. [Firm A](#) – [Firm E](#)) as shown below in the DISTRIBUTION DETAIL report.

Distribution Detail						
Firm C						
	North	South	East	West	Total	
Full Coverage	189	243	163	206	801	
Established Dealers	85	100	85	95	365	
Coverage	45%	42%	53%	47%	46%	
Planned Openings	0	0	0	0	0	
Support/Dealer (000's)	\$362.6	\$318.5	\$362.6	\$331.7	\$342.5	
Units/Dealer	1,475	1,236	1,606	1,347	1,407	
Sales/Dealer (mill.)	\$41.7	\$36.1	\$47.5	\$39.4	\$40.9	
Service/Dealer (mill.)	\$0.8	\$0.7	\$0.9	\$0.8	\$0.8	
Gross/Dealer (mill.)	\$3.9	\$3.5	\$4.7	\$3.9	\$4.0	
Dealer Rating	62	61	65	63	63	

Next

Graph

Print

The DISTRIBUTION DETAIL report provides specific regional information on a firm’s dealership network including their coverage ratio, planned openings, sales and support per dealer, and dealer ratings. “Full Coverage” represents the number of sales areas in each region. Thus, coverage of 45% would imply that 45% of the sales areas are covered in a particular region. “Gross/Dealer” represents the amount of money (gross) that the dealer has to operate their business on average. [Next] displays the next firm in the list, [Graph] displays dealerships by region, and [Print] will print the report.

Competition – Manufacturing

The MANUFACTURING report displays production capacity, actual production, capacity utilization, sales, and inventory (in 000's and days) for each firm. A comment is also displayed to show how production compares with demand. From here, historical data of manufacturing variables can be viewed by period [History] or analyzed over time [Graph].

Manufacturing						
Firm	Capacity (000's)	Produced (000's)	Util %	Sales (000's)	Inv. (000's)	Days Inv. Comment
Firm A	1,700	1,696	100%	1,693	139	30
Firm B	350	395	113%	395	32	30
Firm C	600	525	88%	513	53	38
Firm D	1,600	1,363	85%	1,366	130	35
Firm E	900	872	97%	915	75	30

GraphHistory

The MANUFACTURING DETAIL report is viewed by clicking on the firm name ([Firm A](#) through [Firm E](#)). It provides additional information by product line such as actual production, sales, inventory and days inventory. “Days Inventory” is an estimate of the number of days of inventory available at year-end based on yearly sales and is derived by the formula $(365 \times \text{units inventory} / \text{sales})$. A sample MANUFACTURING DETAIL screen is shown below.

Manufacturing Detail					
Firm B					
Capacity (000's)		350			
Coming on Line (000's)		0			
Vehicle	Prod. (000's)	Sales (000's)	Inv. (000's)	Days Inv.	Comment
Buzzy	122	122	10	30	
Bofo	102	102	8	30	
Beaut	171	171	14	30	
Total	395	395	32	30	

NextGraphPrint

In the comment field, there are a number of messages that may appear: "some shortages" means less than 10% lost sales, "significant shortages" are 10-30%, and "extreme shortages" are over 30%. In addition, you may see a note if a product is upgraded or new, or if sales have exceeded planned production.

Competition – Financial Summary

The FINANCIAL SUMMARY report provides some key performance data for all the competitors — market share, firm preference, sales, COGS, income, stock price, and debt level. A sample screen is shown below.

Financial Summary					
	Firm A	Firm B	Firm C	Firm D	Firm E
Val Mkt Share	28.6%	12.4%	14.4%	24.3%	20.3%
Unit Share	34.7%	8.1%	10.5%	28.0%	18.7%
Preference	20.9%	21.7%	19.8%	17.3%	20.2%
Sales	26,957	11,670	13,589	22,895	19,149
COGS	20,388	7,073	8,799	16,593	13,834
Marketing	358	379	376	355	382
R&D	473	748	648	494	472
G&A	1,078	472	545	911	718
Manufacturing	1,632	389	635	1,544	917
Other	1,503	998	1,019	1,475	1,196
Income	1,526	1,612	1,568	1,523	1,630
Stock Price	47.91	46.15	46.59	46.25	46.50
Mkt Value	25,391	15,691	16,772	22,432	20,460
Total Debt	10,818	1,109	3,613	10,351	6,070

Note: Dollar amounts (except stock price) are in millions.

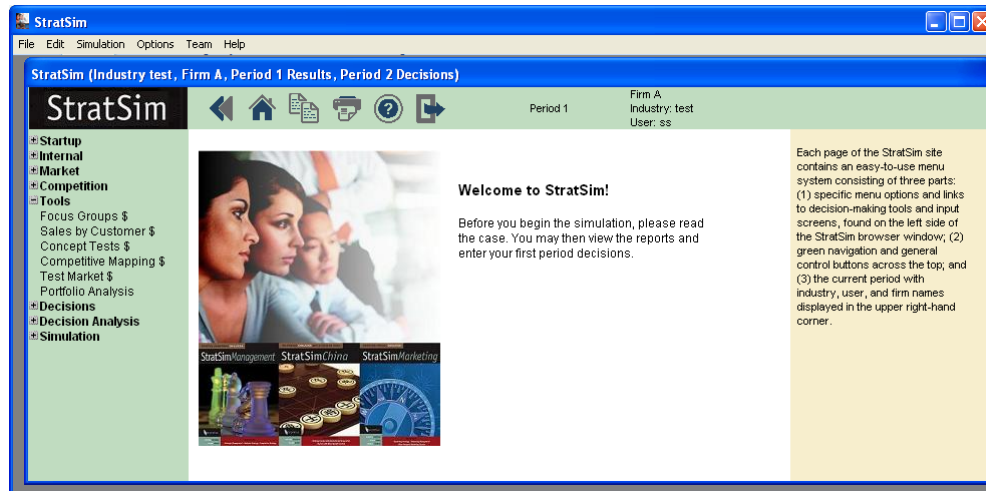
Graph History

Val Mkt Share	Firm sales divided by total industry sales at the manufacturer's level (not retail).
Unit Share	A firm's vehicle sales in units divided by industry unit sales.
Preference	Firm preference is a measure of customers surveyed who show a decided preference for a particular firm. This is based on overall vehicle offerings, dealership reputation, and firm awareness.
Sales (\$)	Sales are recognized at the time of purchase by the end customer. The dollar amount is based on dealer price, not retail price or MSRP.
COGS (\$)	Cost of goods sold (COGS) is the total variable manufacturing cost for the product sold. This is based on the R&D unit cost and the cumulative production.
Marketing	The sum of corporate advertising, public relations, product advertising, product promotion, and sales force.
R&D	Research and Development are the costs associated with product and technology development including process improvement costs.
G&A	General and Administration include non-direct costs otherwise not included on this statement.
Manufacturing	Plant overhead includes fixed production, fixed plant costs and depreciation.
Other (\$)	Licensing fees, interest expense, plant and inventory write-offs, and income taxes.
Income (\$)	Income after taxes.
Stock Price (\$)	Current per share market value of the firm.
Mkt Value (\$)	Stock price times the number of shares outstanding. Each firm has a different number of shares outstanding and can issue new shares, so this is a better indicator of the relative value of the company than stock price alone.
Total Debt (\$)	Combined long and short-term debt.

[GRAPH] displays historical graphs on key performance data for all firms.

Tools

Data points are everywhere. Information is what comes out of well-organized data. Knowledge is having the right information for the issue at hand. If used properly, the tools in StratSim can help turn data into knowledge. Of course, powerful tools don't come cheap, but then, that cost must be weighed against the value of having the right information at the right time.



There are a number of tools to help you convert data into knowledge and to improve your ability to make good decisions. These are organized under the Tools reports. Some tools will help you with product design, others will help you with resource allocation, and others may offer competitive insights not available from public secondary sources.

The exact tools that will be available to your team will depend on the configuration of your game. New tools may also be introduced as the game is advanced, so be aware of possible additions to this menu. Many of these tools will cost money to use, just as ordering and designing market research studies would in the real world. So you should spend some time knowing when and where these tools will be of the most value to you.

Important! Since everyone on your team is sharing the same decision file, when there are a limited number of studies that can be run, this total is for your ENTIRE team, not just you as an individual. So be sure to coordinate purchase of research studies. Once someone on your team purchases a study or tool, your entire team will have access to the results of that research.

Tools – Focus Groups (\$) (Instructor Selected Option)

One method of finding out more about how a particular customer segment thinks about a product, service or company is by arranging for a focus group discussion. A focus group is typically a gathering of six to ten people in a moderated session with the purpose of discovering how participants feel about particular product/service attributes, how they make purchase decisions, or anything else that may be relevant to the company who has paid for the session.

In StratSim, FOCUS GROUP data is organized on a customer basis (e.g. [1E](#), [1T](#), etc.). When you first choose to view the report, you will see a list of all current customers ordered by class. A sample of this screen is shown below. To view a focus group for a particular customer, just click the customer link. You will be charged \$50,000 for each customer chosen, which represents a market research company facilitating multiple focus group discussions throughout all regions of the StratSim world.

Focus Groups			
Customer	Retail Sales	Unit Sales	%Chg (units)
1E	\$6,045	527	+1%
1T	\$8,750	428	+6%
2E	\$7,571	608	+1%
2F	\$19,263	867	+3%
2M	\$9,583	428	+3%
3S	\$4,557	172	+3%
3T	\$5,246	276	+5%
3U	\$7,828	372	+6%
4F	\$12,148	478	+3%
4L	\$6,253	160	+3%
5L	\$6,243	186	+3%
5U	\$8,958	382	+7%
Total	\$102,447	4,882	+3%

Note: Cost of Focus Group Study is \$50 thousand per report.

The detailed view of the FOCUS GROUP study shows the unit share, actual vehicle characteristics, and customer opinions for the top selling vehicles purchased by the particular customer during the most recent period. Their responses provide descriptive measurements about the attractiveness of various vehicles to aid in R&D and competitive analysis. The columns marked “hot” indicate the most important attributes for that customer. Below is a sample focus group study.

Focus Group Study									
1E: Value Seekers - Economy									
	Unit Share	Class Fit	Size	Cost	Perf	Int	Styl	Safe (Hot)	Qva (Hot)
Delite	61%	Economy	7	\$14k	good	2	2	3	2
		good	good	best		avg.	avg.	worst	worst
Alec	22%	Economy	18	\$16k	good	2	2	4	3
		good	big	avg.		avg.	avg.	good	good
DaEcon	15%	Economy	25	\$18k	good	3	3	5	5
		good	big	worst		good	good	best	best

Print

Tools – Vehicle Sales by Customer (\$) (Instructor Selected Option)

The Vehicle SALES BY CUSTOMER tool allows you to see which customers are buying a particular vehicle. This information is helpful to identify those customers who are most interested in your vehicle or in your competitor's vehicle. This data is collected through a consumer survey of car buyers and cross-referenced with the customer group. This report only has information on the consumer market and does not include B2B customers. You may run up to 10 studies at a cost of \$25,000 each.

Vehicle Sales by Customer

Previously Run Reports:
[Study 1: Cafav](#)

Select the Vehicle for the New Study:
Please select a vehicle to show a report of sales by customer. You may run up to 10 studies at a cost of \$25,000 each.

Vehicles:
Alec
Alfa
Awesome
Beaut

Run Study

On the initial screen, select the vehicle from the list box. Clicking on [Run Study] will charge you for the data and display the report as shown below. "Unit Share" refers to that vehicle's market share (in units) of the consumer customer listed. "Units" are the unit sales to that customer. "Percent of Sales" equals the sales sold of that vehicle to a particular customer as a percentage of the total sales of that vehicle.

Vehicle Sales by Customer - Cafav			
Cafav - Family			
Consumer Customer	Unit Share	Units (000's)	Pct of Sales
4F	27.2%	130	66.3%
2F	3.4%	29	15.0%
3S	7.3%	12	6.4%
5L	2.3%	4	2.2%
3U	1.1%	4	2.2%
2M	0.9%	4	2.0%
5U	1.0%	4	2.0%
2E	0.4%	3	1.3%
1T	0.5%	2	1.0%
4L	1.1%	2	0.9%
3T	0.4%	1	0.5%
1E	0.1%	0	0.2%
Total Consumer	4.0%	196	100.0%

OK

Tools – Concept Tests (\$) (Instructor Selected Option)

Concept testing is an important step in the new product development process. This is an opportunity for your firm to get early feedback on your potential product before the costly development cycle begins. Spending some time up front with customers can save a tremendous amount of resources down the road.

Each study run costs \$100K. However, before you may test a concept, you must first develop a concept under DECISIONS – PRODUCT DEVELOPMENT – CONCEPT TESTS. Once the concept is created, your firm can then test the concept [Run Study] with one customer group at a particular price point. Each price point and customer group is a new study even if run using the same concept. After a study is run, it will be available until the simulation is advanced as a link under “Previously Run Concept Tests” as shown in the sample screen below. However, the first time you use the tool, there won’t be any previously run concept tests listed.

Concept Test
Previously Run Concept Tests:
[Study 1: 1E, Economy, 25, 125hp, \\$15,000](#)
Select the Parameters for a New Concept Test:
Please select a target customer, a concept, upgrade or on-going development project, and a target selling price. Up to 10 studies per year may be run at a cost of \$100,000 each.

Customer:
1E
1T
2E
2F
2M

Concept:
Economy, 25, 125hp
Economy, 12, 120hp
Family, 35, 150hp
Sports, 25, 210hp

Selling Price: 12000

Run the Study

Clicking on [Run Study] will generate a table similar to the focus group feedback on existing products. However, instead of market share, it will show the percent of people in this customer segment who are likely to purchase your product based on the current competitive products and pricing. Do note, however, that this does not take into account competitive differences in distribution, advertising, preference, etc. The study only measures your concept vehicle at a particular price point against other competitive product choices in an unbiased environment. Thus, only use the “likely to purchase” result as a starting point in your product launch production forecast.

Concept Test - 1E, Economy, 10, 100hp, \$15,000									
1E: Value Seekers - Economy									
	Class Fit	Size	Cost	Perf	Int	Styl	Safe (Hot)	Qwa (Hot)	Likely to Buy
Economy, 10, Economy 100hp	good	good	\$15k worst	best	2 best	2 best	2 avg.	2 best	46%
OK									

Tools – Competitive Mapping (\$) (Instructor Selected Option)

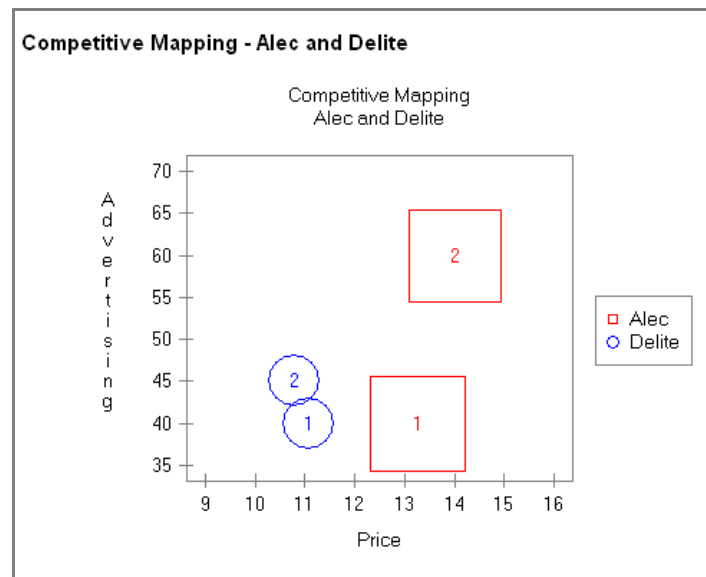
The COMPETITIVE MAPPING tool allows you to track competitive movement on key decision variables over time. You may create up to 20 maps per year at a cost of \$25,000 each.

Competitive Mapping
Previously Run Competitive Maps:
[Map 1: Alec / Delite, Price / Advertising](#)
Select the Parameters for the Competitive Map:
Please select two vehicles and two dimensions to use when creating the map. You may create up to 20 maps per year at a cost of \$25,000 each.

Products:	Dimensions:
1 Alec	1 Price
2 Delite	2 Advertising

Create Map

On the first screen, you will select two products and two dimensions to display. In some cases, you may want to choose two competitors. In others, you may wish to display your product and its primary competitor. There are 13 different dimensions you may choose from, including all the important marketing decision variables and product development dimensions. Clicking on [Create Map] will charge you for the map and display the grid, as shown below.



Each product has its own shape, and the location of the shape is based on the value associated with the dimension chosen in a particular period (1, 2, 3, etc.). The area of the shapes represents the quantity of sales in units in that period. So, at a glance you can see both the change in a decision (the location of the shape) and the sales associated with that decision (the size of the shape).

Tools – Test Market (\$) (Instructor Selected Option)

The TEST MARKET tool allows you to experiment with different combinations of price, advertising and promotion. You may run up to 5 test markets at a cost of \$100,000 each. A test market condition is created in a particular city where levels of price, advertising and promotion are adjusted from your national levels and the change in the sales in that market is measured. By extrapolating this change to national levels, a marketing manager can make better judgments on how much to adjust the marketing mix variables for the coming year.

Test Market
Select the Parameters for new Market Test:
Please select a product, then enter a price, advertising and promotion levels to test. Your test price can be +/- 10% of the current price, while test advertising and promotion can be no more than \$50 million, or double your current level, whichever is greater. Up to 5 studies per year may be ordered at a cost of \$100,000 each.

Product:

Alec
Alfa
Awesome

Test:
Price:

14000

Advertising:

80

Promotion:

40

Create Test

On the first screen, you will select a product and enter the price, advertising, and promotion levels (as if done nationally). There is a maximum change in price of +/- 10%. Advertising and promotion can be run at levels representing \$50 million or double the current levels, whichever is greater. Clicking on [Create Test] will charge you for the test, run the test market, and display the results as shown below.

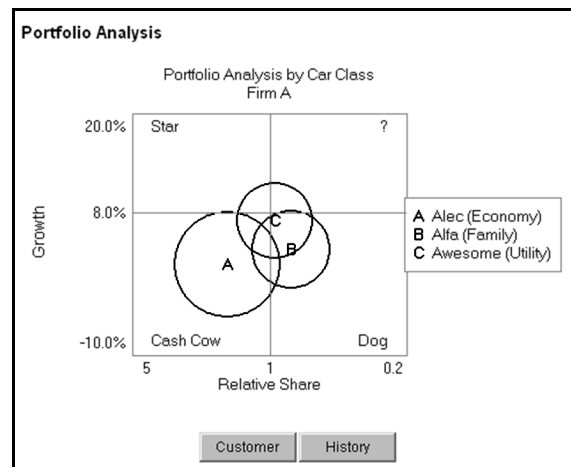
Test Market - Alec		
	Baseline	Test
Price	\$14,872	\$14,000
Advertising (mill.)	\$40	\$80
Promotion (mill.)	\$20	\$40
Awareness	46%	51%
Unit Market Share	10.1%	11.6%
Value Market Share	7.3%	7.9%
Net Contribution Impact (mill.)	-	\$+495

OK

The baseline represents the current levels of spending on price, advertising, and promotion, and shows results in the test market based on those levels. (The baseline results in the test market may vary from national conditions). The “Test” column will show the test market conditions and results. You can quickly see the impact of the change in the marketing mix on awareness, market share, and net contribution. *Note that these results are only estimates based on the test market and don’t factor in other changes in the market or competitive landscape that may occur in the decision period.*

Tools – Portfolio Analysis (Instructor Selected Option)

The PORTFOLIO ANALYSIS tool displays your current product portfolio in a 2 x 2 growth-share matrix using the standard Boston Consulting Group (BCG) terminology of star, cash cow, dog, and question mark. This tool is designed to provide your firm with an overview of your competitive position in your target markets. Though some may use this information in a prescriptive sense to help allocate resources, it may be more appropriately used in a descriptive way to see both relative importance of products to your company (size of circle), relative strength in the marketplace (where the product is placed horizontally), and relative attractiveness of the market / class where the product competes (where the product is placed vertically). This analysis can be done either using vehicle class as the market definition (free) or customer (\$100K if instructor selected option is chosen).



Market Definition: The legend on the right side of the chart shows the Strategic Business Units (SBUs) for a particular firm. In the StratSim environment, each SBU corresponds to a product. Markets are defined as one of the product classes as shown in the MARKET SHARE menu choice under COMPETITION. Choose the [**Customer**] button to change your market definition to customer.

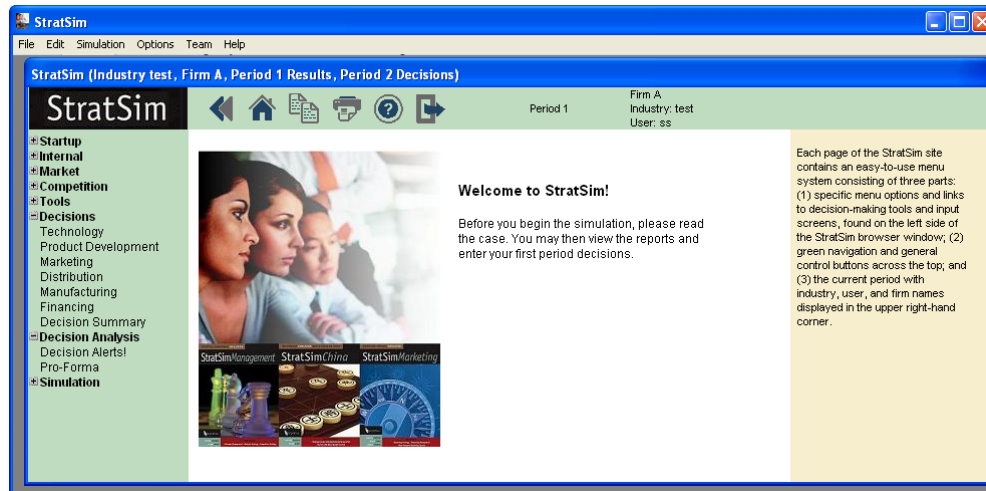
Growth: The position of the SBU on the vertical axis is determined by the market growth of the product class where the brand competes. Growth rates for each product class are found in the MARKET SHARE report.

Relative Share: One measure of a product's strength in the marketplace is its relative market share. Relative Share is calculated by dividing a product's market share by the market share of its largest competitor. Share of each brand for a product class is found in the MARKET SHARE report by clicking on a product class. For example, if a utility vehicle has 47% of the utility class and its largest competitor has 19% of that same class, its relative market share is $47 / 19 = 2.47$, placing it to the left of the vertical line representing a relative share of 1. Thus, those products that are centered to the left of the vertical line are market leaders; those to the right are market followers (based on this definition of market).

Choose the [**Customer**] button to change your market definition from vehicle class to customer. This option will re-generate the analysis based on the market definition of which customer purchases the most of the vehicle. Growth and relative share are also based on this more refined market definition as well.

Decisions

The DECISIONS screens are where you will enter technology investments, create concepts, develop products, decide on your marketing expenditures for the consumer market, set production and build capacity, maintain and grow your dealership network, and ensure you have sufficient resources to accomplish your goals (and enter international decisions if that module is selected by your instructor). Once all decisions are made, use DECISIONS ANALYSIS – PRO-FORMA to project your firm's financial performance.



Making decisions is the implementation of strategy. If the strategy is clear, the decisions should follow fairly easily. It may take some time to work out the details, but with a strategy in place it is easier to recognize those areas that need attention and priority.

Decisions should be the end result of your analysis. Use the following points to guide your decision-making process.

- Decide on, change, or revisit your strategy.
- Use the problems and opportunities that are within your strategic framework to guide where to focus time and resources.
- Understand your financial resources and your competitors' strategies.
- Identify the actions necessary for your firm to achieve your objectives.
- Check the Decision Alerts report to make sure you did not miss anything important.
- Use the pro-forma under Decision Analysis as a check on your assumptions.

All your decisions will be saved to the server, so you must be on-line to make decisions. Anyone else on your team will be able to see your decisions after you have left a particular decision screen.

Important! Everyone on your team is sharing one decision file, so you will need to decide how best to divide the decision responsibilities. Please note that as a safeguard against overwriting each other's decisions, no two people will be able to enter the same decision screen at the same time.

Decisions –Technology

These decisions consist of investing in the four basic technical capabilities of the firm. Click on the [Curr. Expenditure](#) link to invest in one or more of these areas, using the checkboxes provided. The cost of each of these enhanced capabilities is presented in the Technology Capabilities table. The estimated annual benefit of the increase in capability is also displayed. Note that the simulation uses the decisions you are in the process of making to estimate the benefits. For example, an increase or decrease in your scheduled production of a particular vehicle will be reflected in the estimated annual benefit. You may “undo” any changes to these decisions until the simulation decision deadline.

Technology Decisions				
Technology Capabilities				
	Interior	Styling	Safety	Quality
Maximum	9	11	8	10
Firm Maximum	4	5	4	4
Cost (mill.) to Increase by 1	\$403	\$395	\$453	\$362
Est. annual benefit (mill.) of increase	\$20	\$23	\$81	\$45
Curr. Expenditure	\$0	\$0	\$0	\$0

StratSim

Investing in your firm’s development capabilities can be an important long-term decision. Higher technical capabilities bring two significant competitive advantages. First, your firm is able to develop vehicles with better characteristics, which is likely to be important to some customers. Secondly, the base cost of projects is lower if you have greater technical capabilities. In other words, a vehicle with attributes of 2, 2, 2, 2 (interior, styling, safety, and quality) costs less on a per unit basis for a firm with greater technical capabilities given the same production levels.

Decisions – Product Development

The PRODUCT DEVELOPMENT decision screen provides a helpful summary of all that is going on in your development centers. The sample screen below (contains in-progress information) shows a situation where a firm has two active development centers, one of which is being used to develop a new Economy class vehicle that will be called the Enigma when it is released into the market. The specifications of the Enigma are listed to the right as well as the cost (this period only) for developing the product. The second development center is currently available for another project and could be used for a major or minor upgrade, or for another new product.

Product Development Decisions											
Product Development											
Dev	Ctr	Project	Class	Status	Size	HP	Int	Sty	Saf	Qua	Curr Exp
		Max.			100	300	4	5	4	4	
1		Enigma	Economy	new: launch per. 4	10	100	2	2	2	2	\$440
2		(unused)									
Total											\$440
Products Upgrade Concepts Dev. Center											

If you would like to add more development centers, choose the [Dev. Center] button. This will allow you to increase your centers by a maximum of one each period. Of course, there is a one-time cost associated with building a new development center, and it takes one year to become operational.

You may view your current product specifications and costs at any time by using the [Products] button. The [Concepts] button will take you to the create concept screen, allowing you either to create a new concept or move a new concept into development. The [Upgrade] button will allow development of either a minor or major upgrade to one of your current vehicles as shown below.

Product Development Decisions

Upgrade Estruck Truck

	Upgrade	Previous
Size (1-100):	65	63
Engine (HP):	270	270
Attributes (Int/Sty/Saf/Qua):	2 / 1 / 2 / 2	1 / 1 / 1 / 2
Base Cost (100k units):	\$13,051	\$13,264
Development Cost (mill.):	\$254	
Launch:	per. 2	

Test

Modify

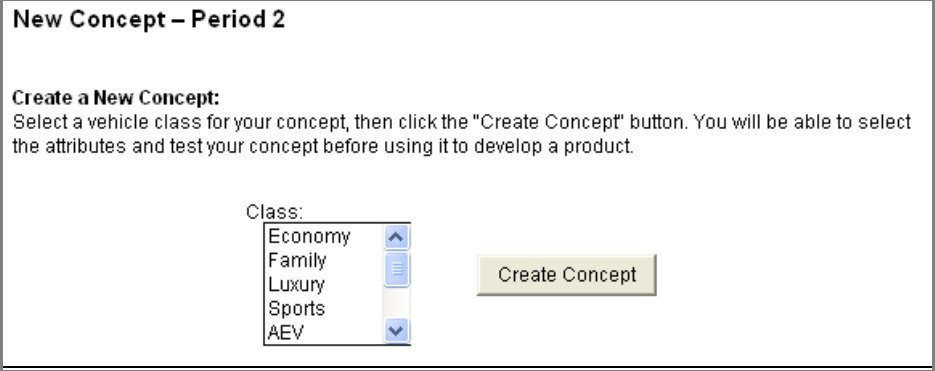
Cancel Project

Development

An upgrade allows you to “tweak” any of the product specifications and will attempt to reduce your cost of goods sold. Do note that if you choose to upgrade a vehicle, any current inventory will be sold off at a loss, and you will also incur a retooling charge in addition to the cost of developing the upgrade.

Decisions – Product Development – New Concept

The first step in new product development is the creation of product concepts. A concept in StratSim is a set of potential specifications for a vehicle to give to the R&D department for further study. Concept creation is not used to upgrade or change an existing vehicle, only for new vehicles. Once a concept has been created, you may want to run one or more concept tests on it before moving the concept into development. Please see the CONCEPT TEST section of the operations guide for more details.



New Concept – Period 2

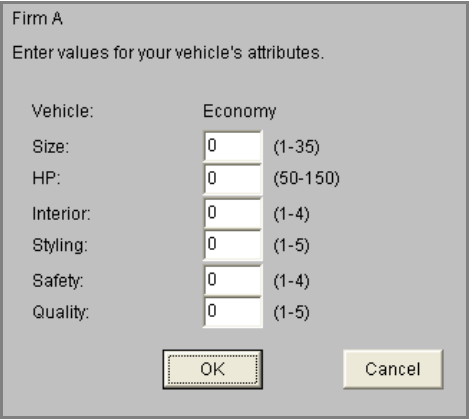
Create a New Concept:
Select a vehicle class for your concept, then click the "Create Concept" button. You will be able to select the attributes and test your concept before using it to develop a product.

Class:

Economy	▲
Family	▢
Luxury	▢
Sports	▢
AEV	▼

Create Concept

On the initial NEW CONCEPT screen, you will be asked to select a vehicle class. Then select the [Create Concept] button to allow you to set the vehicle specifications as shown below.



Firm A

Enter values for your vehicle's attributes.

Vehicle:	Economy	
Size:	0	(1-35)
HP:	0	(50-150)
Interior:	0	(1-4)
Styling:	0	(1-5)
Safety:	0	(1-4)
Quality:	0	(1-5)

OK Cancel

Select [OK] to create the concept. Once created, you will get feedback from R&D regarding the expected unit cost (at 100,000 units of production), the overall cost of the development project if you decide to move it from concept to development, and the number of years required for development. This screen is shown on the next page.

New Concept

Concept 1: Economy, 10, 100hp

Class: [Economy](#)

Size (1-100): 10

Engine (HP): 100

Attributes (Int/Sty/Saf/Qua): 2 / 2 / 2 / 2

Est. Base Cost (100k units): \$0

Development Cost (mill.): \$461

Development Time: 2 yrs



Develop

Note: In order to move your concept into development, you must click the Develop button.

Test

Modify

Delete

Concepts

From this screen, you may choose to see what the market thinks about your concept using the [Test] button. Please see the TOOLS – CONCEPT TEST description earlier in this guide for more details on how to run and interpret concept tests.

Based on the results from the concept testing process, you may decide you should change the concept. To do this, just select the [Modify] button that will take you back to the specifications input screen. There is no additional expense to modify a concept at this stage. Therefore, get it right before moving ahead to the product development stage.

Once you are satisfied with your concept and have decided it is worth the investment to put it into development, choose the [Develop] button. Doing this will move the concept into development and occupy one of your development centers for two or three years (depending on the length of the project). When you move a concept into development, you will be asked to name the project. This will ultimately become the name of your product in the market and is limited to 12 characters. The product name has no impact on the sales of your product, although civility is appreciated in playing the game.

Important: You must choose the [Develop] button to move a product from the concept stage into the development center; otherwise the product will never come to market.

Ready to start development on concept Economy, 15, 100hp. Please enter a vehicle name.

OK

Cancel

Ariba

You may choose to cancel development at any time if you change your mind about the viability of the project. Remember that development centers are limited, and product development is a time consuming and costly process, so choose wisely.

Decisions – Marketing

CONSUMER MARKETING decisions include both corporate and product components. The corporate level decisions consist of allocating a corporate advertising budget across regions, a direct mail campaign budget, and a public relations budget. The product level marketing decisions include setting the MSRP, dealer discount, promotional budget, advertising budget and theme. The main marketing screen is shown below.

Marketing Decisions

[Corporate Marketing](#)

	Budget (mill.)
Regional Corp. Adv.	\$100
Direct Mail	\$0
Public Relations	\$12
Total	\$112

Product Marketing

Vehicle	Platform	MSRP	Dealer Disc.	Adv. (Mill.)	Adv. Theme	Promo. (Mill.)
Estruck	PET1	\$22,019	12.0%	\$60	Perform	\$20
Euro	PEU1	\$25,115	13.0%	\$40	Styling	\$30
Evan	PEM1	\$25,047	12.0%	\$80	Styling	\$40
Total				\$180		\$90

To change the corporate advertising, direct mail, or public relations budget, click on [Corporate Marketing](#). A sample screen is shown below.

Enter your plan for creating overall awareness of the firm among consumers.

Firm E

Corp. Adv. (mill.\$):

North 25

South 25

East 25

West 25

Public Rel. (mill.\$): 12

Direct Mail (mill.\$): 0

Mail Targets:

☐ Value Seekers(1)

☐ Families(2)

☐ Singles(3)

☐ High Income(4)

☐ Enterprisers(5)

OK Cancel

Corporate advertising is allocated on a regional basis and helps to create overall firm awareness, preference for your firm, and provide advertising in support of dealerships. Public relations expenditures help to stimulate interest in your firm's new and future product offerings. Direct mail allows you to target particular consumer segments, telling them about special promotional offers available for new vehicle purchases at the dealerships.

To change the marketing mix of one of the products on the CONSUMER MARKETING screen, click on the product name (e.g. [Alec](#)). This is also where you may take a vehicle off the consumer market or discontinue (drop) a vehicle by removing the checkmark in the "Sell in Consumer Market" checkbox. This will not automatically sell off the inventory, unless you have discontinued the vehicle from the manufacturing screen, (as you may choose to continue to sell it through other channels, if applicable).

Enter marketing decisions for the vehicle below.

Vehicle: Alec

MSRP: 13725 Promotion: 20

Dealer Discount: 9 Advertising: 40

Adv. Theme: Interior, **Styling**, Safety

☒ Sell in Consumer Market

OK Cancel

The MSRP is important in two ways. One is that it sets price expectations in the mind of the consumer (positioning), and the other is that the MSRP is the basis for setting the actual revenues to your company after the dealer discount is taken. For instance, if the MSRP is set at \$20,000 and the dealer discount is set at 10%, your actual revenues will be $\$20,000 \times (1 - .10) = \$18,000$. Typically, the retail price (what the customer actually pays) for the vehicle will be somewhere between the price to the dealer (\$18,000) and the MSRP (\$20,000), but that will vary depending on promotional programs, demand / inventory, target markets, etc.

The promotion budget is used for special dealer or consumer promotions such as below market financing rates, consumer rebates (additional discounts off the price), and dealer incentives such as an additional discount to the dealer if certain sales goals are met. In addition, some of the promotional budget will be used to generate awareness about the special promotional programs as well as items such as product brochures, mailings, contests, etc.

Product advertising plays an important role in establishing vehicle awareness and shaping customers' perceptions of products. The role of advertising serves three primary purposes in StratSim. First is to create general awareness for the vehicle and establish brand/product identity. In general, this aspect corresponds to whether or not the consumer knows the product name and its general positioning in the market. Second is to create top-of-mind awareness that loosely can be interpreted as a share of voice measure. For example, if consumers are asked to name a utility vehicle, the utility vehicle(s) they are most likely to mention have the greatest awareness and share of voice. The third aspect of advertising relates to the content of the advertising message. In StratSim, this corresponds to what aspect of the vehicle is emphasized in advertising (interior, styling, safety, quality or performance). Product managers typically attempt to match the advertising theme with what is most important to their target customer(s). So the theme chosen should be something that is both important to the customer and an attribute which represents a competitive advantage for the vehicle. In general, the majority of the advertising budget is spent on media buys, with the remainder on the creative input and theme.

Decisions – Distribution

The DISTRIBUTION DECISIONS screen is where you may open or close dealerships on a regional basis and set a training and support budget for the dealerships. The main distribution screen is shown below.

Distribution Decisions					
Dealerships					
	North	South	East	West	Total
Full Coverage	189	243	163	206	801
Established	100	120	85	90	395
Coverage	53.4%	49.9%	52.6%	44.2%	49.8%
Sales/Dealer (mill.)	\$50.8	\$53.7	\$46.3	\$52.5	\$50.8
Sched. Change	0	0	0	0	0
Dealer Inc./Dec.	0	0	0	0	0
Training and Support					\$25

Click on the [Dealer Inc./Dec.](#) or [Training and Support](#) link to enter distribution decisions as shown below.

Enter changes to the number of dealers in each region along with training budget.

Firm E

Dealer Inc/Dec(max 40): Training (mill.\$):

North	0	25
South	0	
East	0	
West	0	

For each region, enter the change in dealerships. This may be positive or negative. The maximum allowable change is 10% of your current dealerships. So, if you have 600 dealerships, and you add 30 in one region and decrease by 30 in another region, you have reached your maximum allowable change.

Note: It takes 1 year to open or close a dealership. For example, if you make the decision to add dealerships in the first period (results for period 1), it will not impact results until the results for period 3. Pending dealership openings and closings will appear on the “Sched. Change” line in the decision screen shown at the top of this page.

Enter your training and support budget here as well. This allocation of resources is targeted to improve the experience the customers will have at the dealership in the long run. Select [OK] to accept the changes made when completed.

Decisions – Manufacturing

MANUFACTURING DECISIONS consist of building or selling off capacity and setting planned production levels for each vehicle. Previous sales and current inventory levels are noted to help in your planning process, as are retooling costs if applicable. The main production screen is shown below.

Manufacturing Decisions
Plant Capacity

Current Capacity	1,000
Capacity Change (000's)	0
Est. Cost of Add'l 100k (mill.)	\$743

Vehicle Production

Vehicle	Previous Sales (000's)	Current Inventory (000's)	Scheduled Production (000's)	Flexible Production	Retooling Costs (mill.)
Estruck	367	30*	351	X	\$121
Euro	328	27	301	X	\$0
Evan	200	16	209	X	\$43
Total	895	74	861		\$164

*Vehicle being upgraded: this inventory is old model and will be written off. Be sure to produce enough to meet forecast.

To enter the production for a vehicle and set whether or not flexible production will be allowed, click on the product name. A sample of this input screen is shown below.

Enter your production decision.

Vehicle:	Estruck
Previous Sales:	367
Current Inventory:	30 (will be written off at a cost of \$38.2)
Scheduled Production:	351
Flexible Production:	☒ (plus/minus 10% of scheduled)

In general, the car industry aims to have 30-60 days of inventory available, but may have less if a firm is planning to upgrade or discontinue a vehicle. It is important to note that, when upgrading a vehicle, the current inventory will not be sold in the market, but will instead be written off at a loss to the company.

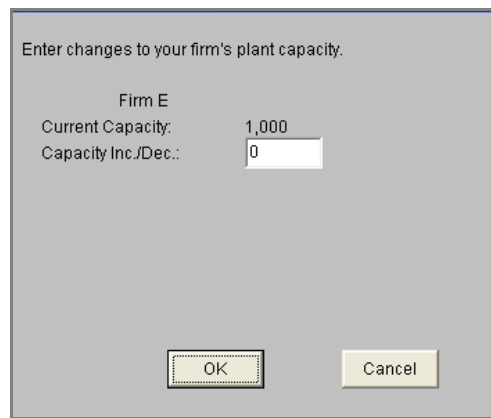
By default, the Flexible Production checkbox is enabled. In this case, if demand is greater than supply, the simulation will automatically increase production up to 10% to sell the unmet demand. If the supply is greater than 120 days, the simulation will automatically decrease the supply by up to 10% to meet the 120 days of inventory. If inventory levels are between 0 and 120 days, production remains unchanged. If the checkbox is disabled, your firm will produce exactly what you have entered in the Scheduled Production field. Note that if the sum of all production (including flexible) exceeds capacity, you will be charged any over-capacity charges that apply.

Retooling costs are based on new platforms or increases in the production of an existing model, where existing capacity needs to be changed from one model to another. Thus, careful planning with regard to forecasting demand and production helps keep retooling costs lower.

Capacity Adjustments

To build or sell off overall firm capacity, click on [Capacity Change](#) and enter the change in capacity (positive or negative). The estimated cost of an additional 100,000 units of production is displayed, though you are not restricted to blocks of 100,000 units. These costs are depreciated over ten years. The following period, the additional capacity is available for production decisions.

You can decrease capacity by entering a negative number. Increases and decreases are limited to 50% of your current capacity. Once the decisions are entered, click on the [OK] button.

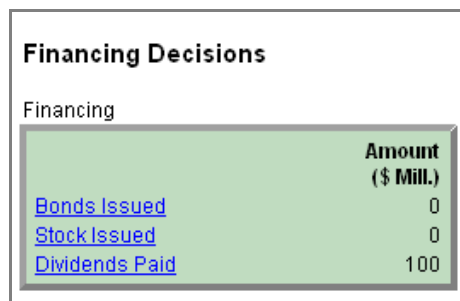


The screenshot shows a dialog box titled "Enter changes to your firm's plant capacity." for "Firm E". It displays the "Current Capacity" as 1,000. Below this, there is a label "Capacity Inc./Dec.:" followed by a text input field containing the number "0". At the bottom of the dialog box, there are two buttons: "OK" and "Cancel".

Alternatively, you may choose to produce over capacity at a charge dependent upon the number of units produced beyond the firm's base capacity. This value is shown in the plant capacity section of the screen as "Over-capacity Charge (\$M)".

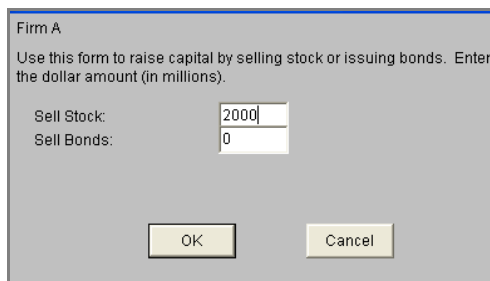
Decisions –Financing

The FINANCING DECISIONS report is where decisions involving cash flow and investor relations are entered. Often, these decisions will be made after you have used the pro-forma analysis to forecast your cash flow and financing needs. When there are not enough funds to cover all cash needs, a short-term loan is automatically issued. However, you have the option of replacing the short-term loan with long-term debt and/or issuing stock. This decision screen is also where your firm declares the dividend amount each year.



Financing Decisions	
Financing	
	Amount (\$ Mill.)
Bonds Issued	0
Stock Issued	0
Dividends Paid	100

Click on [Bonds Issued](#) or [Stock Issued](#) to issue either stocks or bonds in the CAPITAL DECISION input screen as shown below. Note that values are entered in millions. Thus, 2000 equals \$2 Billion.



Firm A

Use this form to raise capital by selling stock or issuing bonds. Enter the dollar amount (in millions).

Sell Stock:

Sell Bonds:

Issuing bonds or selling stock is done to raise money for operations. Long-term bonds have lower interest rates than short-term loans. Stock carries no interest, but will dilute shareholder value. If your firm needs cash and doesn't issue stocks or bonds, StratSim will automatically issue a short-term loan necessary to cover capital liens at the current short-term rate.

Bonds are callable after 3 years, and there is an interest penalty of 1 year on the bond to call it. A checkbox will appear on the CAPITAL DECISION screen on any bonds eligible to be called and the entire amount originally issued must be called (no partials). If the instructor has selected the stock buy-back option, cash may be used to purchase shares on the open market by entering a negative number under Sell Stock. You may buy back up to 20% of the current stock, if the stock buyback option has been selected by your instructor.

The [Dividend Paid](#) link will open the input screen used to set the dividends paid to stockholders. Though dividends are a use of cash, they might also improve stock price.

Decisions – Decision Summary

When you have completed all the decisions screens, it is recommended that you review the decision summary and print it out. The decision summary provides a record of the current set of decisions on the simulation server and should be checked before the decision deadline for errors. Once the simulation is advanced, you will not be able to correct any input errors, so take the time to double check your entries before the deadline.

Important: The top of the decision summary screen may display some basic decision error warnings. These warnings may pertain to your team not entering changes to your product decisions, not entering launch information for new products, having unused concepts that were not put into development, production of zero units, and no changes in firm decisions (non-product decisions). Please check these before the decision deadline.

The first part of a sample decisions summary screen is shown below.

Current Decisions:

Technology Capabilities

	Interior	Styling	Safety	Quality	
Curr. Expenditure	\$0	\$0	\$0	\$0	

Product Development

Dev	Ctr	Project	Class	Status	Size	HP	Int	Sty	Saf	Qua	Curr Exp
1	Enigma	Economy	new: launch per.	4	10	100	2	2	2	2	\$440
2	Estruck	Truck	upgr: launch per.	2	65	270	2	1	2	2	\$256
Total											\$693

Consumer Marketing

	Budget (mill.)
Regional Corp. Adv.	\$100
Direct Mail	\$0
Public Relations	\$12
Total	\$112

Product Marketing

Vehicle	Platform	MSRP	Dealer Disc.	Adv. (Mill.)	Adv. Theme	Promo. (Mill.)
Estruck	PET1	\$22,019	12.0%	\$60	Perform	\$20
Euro	PEU1	\$25,115	13.0%	\$40	Styling	\$30
Evan	PEM1	\$25,047	12.0%	\$80	Styling	\$40
Total				\$180		\$90

B2B Marketing

Segment	SF (#)	Mail (mill.)
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Once the simulation has been advanced to the next year, your course website will be updated with results, and you can choose either to REFRESH DATA (under OPTION from the drop down menu) or just login again. The simulation will now be in the next period reflected at the top of the StratSim program window.

Decision Analysis – Decision Alerts!

This screen will display timely messages to your firm alerting you to decisions that have not yet been entered. They may pertain to your team not entering changes to your product decisions, not entering launch information for new products, having unused concepts that were not put into development, production of zero units, and no changes in firm decisions (non-product decisions). Some of these may be your intent, but it is always worth checking these messages and then entering any necessary adjustments to your decisions before the simulation is advanced.

Decision Analysis – Pro-Forma

The PRO-FORMA section of the decision analysis menu is used to project your inventory, contribution, income and balance sheet items for the upcoming year. If the estimated values do not meet your expectations, you may want to reconsider your decisions or forecasts (or possibly, your expectations). On the first screen you will be asked to enter a forecast for each product. The forecasts represent your sales estimate (in units) for the consumer market for the coming year. When setting these forecasts, remember to consider factors such as changes in your product (upgrades), price (MSRP or discounts), marketing support (advertising and promotion), expected demand, and, of course, don't forget about the competition. Additionally, review any qualifying direct sales.

Pro-Forma: Firm A

Consumer Sales Forecast

Vehicle	Prev. Sales	Sales Forecast
Alec	803	803
Alfa	479	479
Awesome	411	411

OK

The sales forecast links on this report allow you to enter sales forecast figures for the pro-forma calculations. When you click on the [OK] button, you will see a report that calculates your projected inventory and retooling costs (if any), based on your forecasts and production levels.

Pro-Forma: Firm A

Firm A

Vehicle	Units (000's)	Dealer Sales (mill.)	Direct Sales (mill.)	COGS (mill.)	Gross Margin (mill.)	Adv Promo (mill.)	After Mktg (mill.)
Alec	581	\$8118	\$0	\$6078	\$2040	\$60	\$1980
Alfa	315	\$6756	\$0	\$4369	\$2387	\$120	\$2267
Awesome	310	\$5642	\$0	\$4340	\$1302	\$90	\$1212
Total	1,207	\$20516	\$0	\$14787	\$5729	\$270	\$5459

Note: Dollar amounts are in millions.

Per Unit Contribution

Vehicle	Per Unit Revenue	Per Unit COGS	Per Unit Margin	Margin Pct.	Adv Promo	Per Unit Contrib.	Contrib. Pct.
Alec	\$13970	\$10459	\$3511	25%	\$103	\$3407	24%
Alfa	\$21435	\$13861	\$7573	35%	\$381	\$7193	34%
Awesome	\$18188	\$13992	\$4197	23%	\$290	\$3906	21%
Total	\$17005	\$12256	\$4748	28%	\$224	\$4525	27%

Note: Dollar amounts are per unit.

There are four additional reports available: Income Statement, Balance Sheet, Cash Flow Report, and Product Contribution, corresponding to the internal company reports, but on a projected basis. Choose [Select Report] to view one of these four additional reports. The Cash Flow and related Financial Operations reports are shown on the following page.

Note: These values are derived directly from your decisions and forecasts. It is important to understand that the pro-forma values do not attempt to measure the impact of changes in your marketing decisions, nor those of your competitors. It only uses your forecasts. You may change your forecasts at any time.

Decision Analysis – Pro-Forma – Cash Flow Report

In addition to analyzing pro-forma net income and inventory, another essential pro-forma report to check is the projected cash flow and financial operations. A sample Cash Flow report is shown below.

Pro-Forma: Firm A	
Cash Flow	
	\$Mil.
Starting Cash	1,215
Income from Operations	3,363
Plant Investment	0
Financial Operations	-5,115
Adjustments	1,186
Ending Cash	648

The report summarizes the primary activities that impact your cash position: Income from Operations, Plant Investment, Financial Operations, and Adjustments (changes to inventory, A/R, and A/P levels). If you click on the [Financial Operations](#) link, the detail of your pro-forma financial decisions and implications will be displayed as shown below.

Pro-Forma Detail		
Stock price: \$48.		
Shares outstanding: 530 million.		
Bond rating: BB.		
Short term rate (BB): 8.0%.		
Long term rate (BB): 6.0%.		
Financial Operations: Firm A		
	Amount (\$ Mil.)	Comment
Short Term Debt Paid	-10,818	
Short Term Loans	4,102 @ 7.0% (est)	
Bonds Issued	1,000 @ 5.5% (est)	
Stock Issued	2,000 sell 45.3 @ \$44 per share (est)	
Interest Earned	149	
Interest Paid	-337	
Dividends Paid	-100 @ \$0.17 per share	
Tax	-1,111	
Total	-5,115	

The top of the screen contains information on how the financial markets assess your company. The shares outstanding will remain constant unless your team chooses to sell or buy back stock. The bond rating will vary based on the financial position of your company, and the short and long-term interest rates will vary based on your bond rating and general interest rates. Bonds are rated from D (lowest) to AAA (highest), where higher ratings correspond to lower interest rates. If your bond rating improves, the interest rate the market requires from your debt issues will decrease, all other things being equal.

The second half of the screen shows the cash flows from financial operations. At the top of the list are cash flows from short-term debt. All outstanding short-term debt is paid off each year. Any cash deficits based on your current decisions will automatically be filled by short-term debt. On this report, the top line will show short-term debt paid, followed by the projected short-term loans required (and interest rate paid) for the upcoming year. The next two items, “Bonds Issued” and “Stocks Issued”, show any funds raised via a stock or bond offering. Alternatively, if bonds are called (repurchased), this will show up as an additional line item. If your firm decides to buy back stock, the estimated price paid and capital raised will be displayed on the “Stocks Issued” line.

Section 3: Managing for Success in StratSim

Introduction

StratSim is designed to be a challenging and realistic learning experience. We hope that you will enjoy the challenge. The idea behind a simulation is that by striving to improve your performance in an active way, you will better understand how to operate a business. This section of the manual will provide you with some insights that will help you prosper during your tenure as managers in StratSim.

The first goal of StratSim is to allow you to develop, implement, and potentially adjust a strategy in a dynamic environment over multiple years. What exactly does “dynamic environment” mean in the context of business? It means that we can expect customers, competition, and macro-economic conditions to change as time progresses. A good strategy must reflect current realities while also assessing future paths to success in an ever-changing world.

The second goal of the simulation is to give you experience in strategic planning and making decisions in an ambiguous environment. You will be leaving behind the comfort of structured exercises and entering a situation where the road to success is not so clearly defined. Although a company’s strategy is planned and implemented based on knowledge of the current situation, a strategy is also based on certain assessments and judgments about the future. Furthermore, decisions in StratSim are interrelated. Decisions should not be based solely on how one decision in isolation will impact an outcome, but also take into consideration the context of your other decisions as well as those of your competitors. How these decisions will interact is difficult to predict. Remember as the simulation progresses that even if you do not “win” in the simulation, gaining the experience of wrestling with these difficult decisions in an ambiguous environment is an important part of the learning process. In fact, many participants of the simulation will say that their greatest learning occurred when challenges were the greatest.

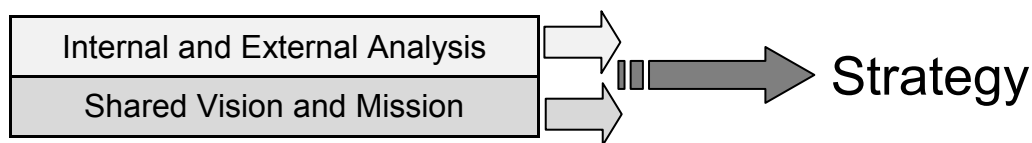
The third goal of StratSim is to give you experience in making decisions as a group where your teammates will likely have different opinions about what your company should do. If this is your first time experiencing a group decision-making process, it requires new skills in addition to knowledge and judgment that focus on group and managerial processes. How will you organize your group? How will you make decisions? Consensus? Delegation? Can you come to a shared vision and mission for your company? Will you embrace your strategy or will you second guess others if faced with obstacles? Managing people and organizations is indeed a challenge. Your team should develop a written “charter” that describes the operating process that the team will use to do analysis, divide labor, and make decisions. Use StratSim as an opportunity to gain experience in this group process.

Before we jump into analysis for success in StratSim, let’s begin with a quick review of the fundamentals of strategy, because a team with a well reasoned strategy has a better chance of succeeding than a team without one. Then we will discuss some points regarding execution of strategy in the context of StratSim. These include measures that provide strategic insights and helpful tips that should improve performance.

Fundamentals of Strategy

A successful strategy is based on two foundations. First is a good understanding of the business situation, achieved from thorough internal and external analyses. Internal analysis is focused on knowing the capabilities and resources of your organization. External analysis focuses on the environment where your company chooses to do business. This will include both industry level considerations (markets, channels, competition, suppliers, etc.) as well as macro considerations (political, economic, socio-cultural, technological, environmental, and legal – sometimes referred to as PESTEL) . The goal here is to understand the forces at work that impact your company. One framework that is often used to organize internal and external insights is SWOT analysis (Strengths, Weaknesses, Opportunities and Threats).

The second foundation of a strategy is the formulation of a shared mission and vision that the leadership sets for the company. This defines where and how it chooses to do business and also provides the directive for setting corporate goals and objectives, and the measures that should be used to evaluate performance and acceptable outcomes. Mission and vision are also the primary drivers of corporate culture and organizational structure, and must be chosen with key stakeholders in mind. Stakeholders are the people and organizations that stand to gain or lose something based on the success of the organization. Typical stakeholders include owners, employees, customers, partners, and suppliers.

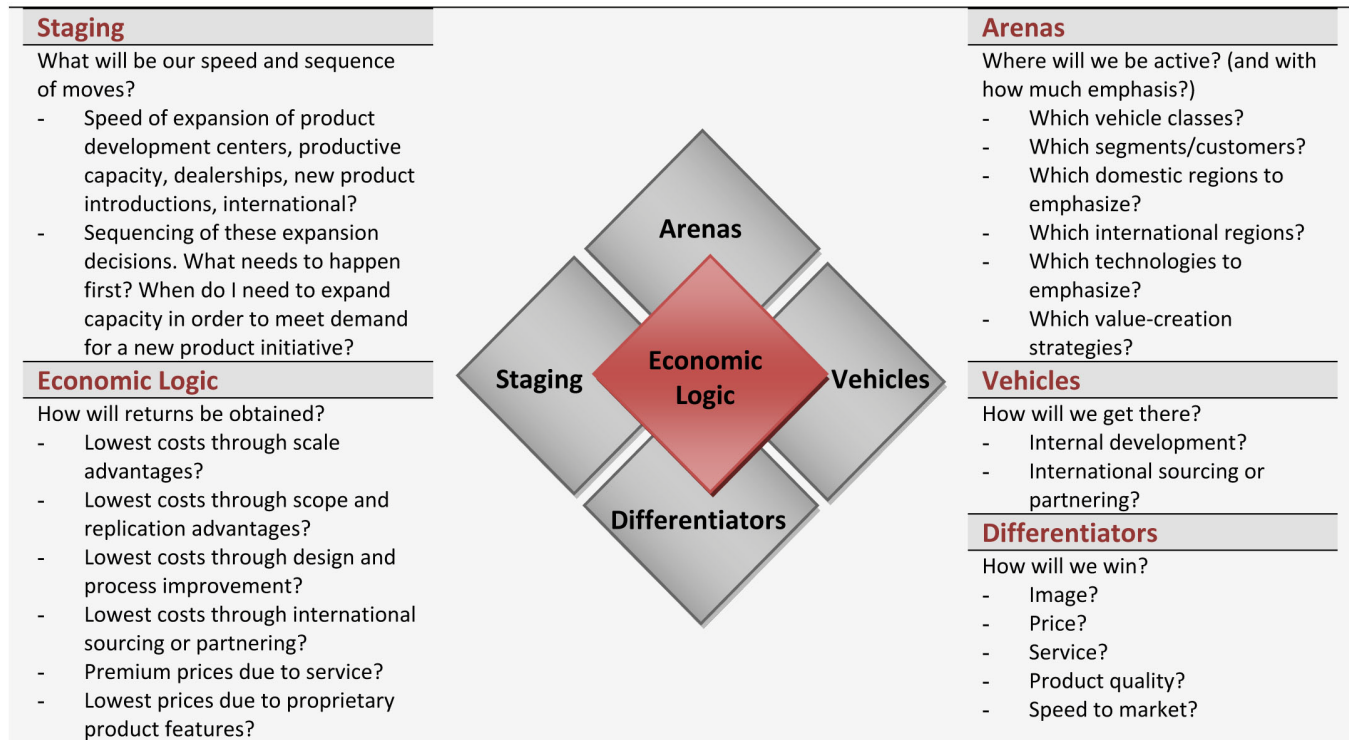


In their 2001 article from the Academy of Management Executive, “Are you sure you have a strategy?” Donald Hambrick and James Fredrickson provide an excellent framework that defines five necessary elements of a strategy. The authors propose that an organization defines its strategy by answering five questions:

- Arenas: Where will we be active?
- Vehicles: How will we get there?
- Differentiators: How will we win in the marketplace?
- Staging: What will be our speed and sequence of moves?
- Economic Logic: How will we obtain our returns?

These questions must be answered in the context of your internal and external analysis and your organization’s vision and mission. Remember to be specific when addressing these questions. Establishing well-defined and agreed upon directives will improve your group’s decision-making process in StratSim, just as having a clearly articulated strategy improves the likelihood of an organization’s strategy being executed successfully. In the following graphic, these five questions are expanded and applied to StratSim to help guide your team’s strategic planning process.

The Elements of Strategy Applied to StratSim



The above provides a brief overview into the process of designing a successful strategy. Your instructor will likely provide additional resources for you to learn more about strategic planning. To summarize, make sure your firm has the following:

1. A good grasp of the business situation through internal and external analysis
2. An agreed upon vision and mission for your company
3. An established process for group analysis and decision-making

Regardless of the framework used, the objective of strategy is to leverage a firm's capabilities and resources in the context of the external environment to create a sustainable competitive advantage over both the short- and long-term. The remainder of this chapter will be devoted to helping you improve your performance in StratSim.

Importance of Strategic Assessment and Judgment

The quality of strategic analysis is an essential part of success in StratSim. Be sure to take the time and effort to fully understand the industry and your firm's position within that industry. An example where a firm could be taken in a non-optimal direction would be where your analysis of the industry causes you to believe that your firm is a high-end provider of vehicles when, in fact, your firm is more of a volume producer. That is different than saying that "although our company is currently positioned as a volume producer, we want to reposition ourselves as a high-end provider". This latter statement at least acknowledges the strategic challenge. Then the question becomes, how does the company reposition itself and is it viable to do so. A second example might be concluding that your firm enjoys a cost advantage over its rivals, when, in fact, the company does not have a true cost advantage where it can produce the same product at a lower cost. Instead, it has low per unit costs due to poor product specifications (e.g. the design has poor ISSQ—Interior, Styling, Safety, and Quality) . In both of these examples, the decisions your firm will make will reflect these underlying strategic assessments, which, in the above examples, were not accurate. Poor assessment will often lead to poor performance. So, it is worthwhile to take the time to question important assessments to make sure your strategy is based on accurate information.

Another area to consider is the definition of competitive arena – both how the arena is defined and where a company chooses to compete. There are several different ways to define the competitive arena. Should it be vehicle class (e.g. utility, minivan)? Segment (e.g. singles, rental fleets)? Customer (e.g. 1E, 2F)? Region (e.g. North, South)? Each approach has its merits, but focusing on one arena definition alone may lead to an incomplete analysis. For example, one can leverage experience in vehicle class as it is less expensive and faster to develop another vehicle of the same class than invest in an entirely new class of vehicle. But that may lead to cannibalization of the current product line. A second example might be pursuing opportunities in the truck class, without having thought through how the alignment of dealerships in particular regions factors into your ultimate success. These are examples of how arena definition needs to support one's strategic assessments.

In terms of choice of arena, consider two companies – one which focuses on low-end economical vehicles, and another that has been making high-end luxury and sports cars. Which do you think would be more successful launching a high-end sports utility vehicle for \$50,000? Would customers wonder if the low-end company is capable of designing this vehicle? Is this potential customer also looking for an element of the prestige associated with owning a particular brand of vehicle? Remember that your company will have a perceived positioning in the marketplace which should be taken into account when considering alternative strategic options. So, when you move into new market spaces, remember that it may take more time and money to gain success in areas that are far from your core experience. It can be done but requires resources and patience.

Performance Success and Shortfalls

Most of the sources of poor financial performance fall into one of three areas: 1) not having enough sales to sustain the on-going costs of running the business; 2) failing to understand the financial structure of your company (e.g. too high product or fixed costs); and 3) failure to have a long-term plan that takes into consideration the proper staging of actions and investments. The remainder of this section will help you identify and diagnose sources of common performance successes and shortfalls.

The Profit Equation

Because long-term profitability is one of the measures of financial performance for your company, you should understand the drivers of profit. As the graphic below shows, unit sales multiplied by unit margin less fixed costs equals your company's profit. Put another way, if your unit sales multiplied by your unit margin does not cover your fixed costs, your profit will be negative. So, generally you will find that if your profit is negative, your unit sales are low, your margin is low, or your fixed costs are high relative to industry standards. This should be straight forward to business students, but easy to forget as the dynamics of your industry play out.

$$\begin{array}{l} \boxed{\text{Unit Sales}} \times \boxed{\text{Unit Margin}} - \boxed{\text{FC}} = \text{PROFIT} \\ \boxed{(\text{Demand} \times \text{Market Share})} \times \boxed{(\text{Selling Price} - \text{COGS})} - \boxed{\text{FC}} = \text{PROFIT} \end{array}$$

We can further define unit sales as overall market demand multiplied by a company's share of the market. We can also further define unit margin as the selling price less the cost of goods sold (COGS). We will refer to this formula as *the profit equation*. Therefore, poor profit performance is caused by some combination of low overall demand, low share, poor margins (the difference between selling price and COGS), or high fixed costs. Let's look at each of these factors in more detail for potential causes of performance successes or shortfalls.

Unit Sales: Demand

What are some of the factors that influence overall (or segment or customer) demand? Three are presented in graphic below – underlying or intrinsic changes in demand, the impact of economic changes, and the impact of how the competitors themselves compete in the industry.

$$\begin{array}{l} \boxed{\text{Unit Sales}} \times \boxed{\text{Unit Margin}} - \boxed{\text{FC}} \\ \boxed{(\text{Demand} \times \text{Market Share})} \times \boxed{(\text{Selling Price} - \text{COGS})} - \boxed{\text{FC}} \end{array}$$

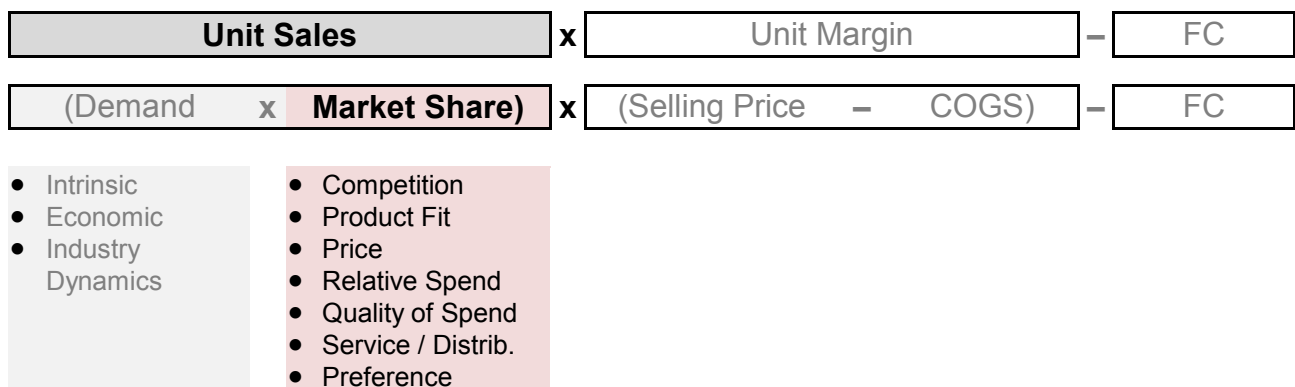
- Intrinsic
- Economic
- Industry Dynamics

Let's consider some examples of each of these factors. Intrinsic changes would be underlying trends based on long-term changes in population, the environment, or customer preferences. In StratSim, these can be tracked over time at the customer (e.g. 1E, 2F, etc.) level. Separate from intrinsic trends would be the impact of the economic environment on demand. The automobile industry historically has been extremely cyclical. During recessions, new auto sales almost always slump as people put off purchasing new vehicles if they are not immediately needed. Also, rising (or declining) gas prices can negatively (or positively) impact the overall demand for vehicles and cause a shift in the demand of specific customer groups or for specific vehicle classes. So, one must consider how changes in the economy and gas prices will impact demand. Finally, how all the firms compete in particular markets also has an impact on overall demand (or demand within a segment). If all the firms innovate, advertise, expand distribution, etc., this will generally stimulate demand overall. Industries where there is less investment in these areas will grow less, all other things remaining equal.

So how do changes in demand impact profitability? In general, the more a company's costs are fixed rather than variable, the more dramatic the impact on profitability will be when demand falls (or rises). As an example, for a firm with \$100M of revenues, if variable costs are running at 60% of revenues (\$60M) and fixed costs constitute 30% of revenues (\$30M), profit will be 10% of revenues (\$10M). If demand falls by 10% resulting in revenues of \$90M, the firm's profits will decline to 6% of revenues (\$6M or \$90-\$54-\$30). This represents a 40% decline in profit or four times the magnitude of the sales decline. Had all costs had been fixed (\$90M), there would have been no profit with a 10% sales decline. Generally, if overall demand is down, all firms will see their profits fall, but weaker firms (firms without a cost or differentiation advantage) will be hurt the most as their gross margins are typically smaller.

Unit Sales: Market Share

If overall demand is stable, but your share of the market declines, a similar drop may be seen in unit sales. After recognizing that your market share has dropped, analyze changes in share at the vehicle class or customer level to find the root cause. What caused the drop in market share in the family class or the 2F customer? Was it a new product launch by a competitor? Did a competitor upgrade a product? Was it due to a change in the marketing mix by either your firm or one of your competitors – pricing, advertising, or promotion? Was it due to insufficient production or perhaps a competitor finally increasing their production to meet demand? If you see that all of your vehicles are losing market share, perhaps the cause was more at the corporate level, due to distribution or firm preference. Usually problems in these areas will impact all your product lines more or less equally.



All of these issues are drivers of your market share. What makes it difficult to diagnose is that there are normally changes in all of these factors each year, which can lead to very reactive decision-making. Your firm's strategy is what provides you with the long-term direction as to how best to alter your tactics as the game progresses. Which target markets should receive our limited resources? Do our products meet our target customer needs? Which competitors do we need to understand and monitor most closely? What will be the most effective methods (levers) to use to drive market share? Utilization of tools to help you better understand the customer and competition, such as the "test market", "focus group" and others, is critical for success.

Unit Sales: Forecasting Sales for a Product

Now that we have discussed the drivers of demand and market share, it is a good time to consider how one might forecast unit sales. Why is this important? In StratSim, you will be asked to enter a production plan for each vehicle. Though this can be adjusted by up to 10% each year by selecting the flexible production option, it is important for your production decision to be as accurate as possible to avoid either stockouts where there is insufficient production to satisfy demand, or having unsold

inventory where production that exceeds demand. A stockout will result in lost sales and presumably, lost contribution. Unsold inventory ties up cash and runs the risk of becoming obsolete resulting in an inventory write-off if the product is upgraded or discontinued. So avoiding these conditions should be one of your company's goals. Of course, the production level for a vehicle should take the current level of inventory available for sales of that brand.

Because the production plan should be based on expected sales for next period less any existing inventory, the key to making an accurate production decision is having a good estimate of sales for next year. This is not a trivial process and the techniques one would use in StratSim are different for an existing product than for a new product. For both situations, however, the drivers of the *Demand x Market Share* part of the profit equation are the basis for the forecast. What varies is the level of uncertainty and the tools one would use.

For an existing product, there is the big advantage of knowing current sales as a base to start the process. For purposes of this example, let us state that the product had achieved sales of 100,000 units. The first question to ask is whether or not there were any special circumstances regarding production levels that impacted these sales. For example, was there a stockout situation either for this product or one of its direct competitors? Check the manufacturing detail for your company and the competitors to find this information. Read the message (some shortages: <10%, significant shortages: 10%-30%, or extreme shortages: >30%) to get an idea of the magnitude of the production shortfall. If, for example, you saw a message that stated "significant shortages", you may want to adjust your base to 120,000 units as an estimate of what you would have sold had you produced sufficient volume to meet demand. In the same way, if a direct competitor's sales were affected by insufficient production, you may want to adjust your base downward.

Next, consider what decisions you are considering for the marketing mix. The potential impact of changes in price, advertising, and promotion may be measured using the test market tool to help you estimate the sensitivity to adjustments in these variables. Of course, this tool assumes that there are no other changes to either your product or competition.

This brings us to the most difficult assessment you must make – what will the competition do and how might this affect next period's market share for the product? The most important issue to note is whether a new competitor is entering into the same market or vehicle class as the product. In the industry news report, all new products (new class) entries are announced one period before the vehicle is sold in the market. This information is important to consider as it will impact your sales forecast, and perhaps as importantly, create a much greater margin for error in the forecast. However, upgrades and new products (same class) are not announced in advance and these will also impact sales. By analyzing historical trends, available development centers, and competitor past behavior and intent, you may be able to gain some insight as to what the competitor is likely to do with regard to upgrades.

There are two final considerations when deciding on production volume. First is your assessment of the risk of losing sales (due to under production) against the cost of holding inventory (due to over production). Some of the factors to take into consideration when weighing these factors are the margin on the product, your plans to upgrade the product in the future and thus obsolete current inventory, and the cost of capital used to build inventory. The second consideration is the potential cost of retooling. Remember that anytime production is increased from the previous period, a retooling charge is assessed. Therefore, a steady production volume over time is preferable to one with significant variation all things being equal.

Unit Margin

Unit margin is defined as the difference between your selling price (which in StratSim is your MSRP less your dealer discount) and the unit variable cost or cost of goods sold (COGS). Unit margin is how much your firm makes on each vehicle sold. In a business where the variable costs are a high percentage of your selling price, pricing and unit cost savings are especially important. This is certainly the situation in StratSim where COGS is often between 60-80% of revenues (or on a per unit basis, of the selling price). Therefore, pay close attention to the impact of pricing and variable costs on the profitability of your business. Let's explore these two areas in more detail.

Unit Margin: Selling Price

Pricing is one of the most critical issues facing a firm. This is because the pricing decision influences all parts of this performance equation. In the profit equation, pricing affects the revenue inflow side of the margin (what the firm receives when it sells a product or service). But the pricing decision also impacts: 1) your market share, 2) pricing by your firm and your competitors in the market influences overall demand, and 3) pricing may also have an indirect impact on COGS if a change in price drives the volume sold (and produced).

Let's briefly consider how important this margin is. Let's say your business currently sells a product for \$100 and COGS is approximately 80% or \$80. If you decide to reduce your price by \$10 and the COGS remains the same, you have also reduced your margin by \$10. On a percentage basis, however, you have cut your margin by 50% (\$20 reduced to \$10). This means that unless unit sales **doubles**, your profits will decrease. So tactically, at least in the short-term, your firm should be asking whether a 10% reduction in price will double your sales. Alternatively, consider a \$10 increase in price with the corresponding increase in margin of \$10/unit. On a percentage basis, you have increased your margin by 50% (\$20 increased to \$30). To maintain or increase product contribution, your sales can decrease by 33% and be no worse off with regard to contribution.

Examining the "price sensitivity" at the customer level and utilizing tools such as "focus groups" and the "test market" can help you evaluate these trade-offs. Basically, these tools are provided to help you understand the price sensitivity or price elasticity for your target market. So, that is the tactical nature of the pricing decision, but pricing has far greater strategic implications.

Unit Sales	x	Unit Margin	-	FC
(Demand x Market Share)	x	(Selling Price - COGS)	-	FC
• Intrinsic • Economic • Industry Dynamics	• Competition • Product Fit • Price • Relative Spend • Quality of Spend • Service / Distrib. • Preference	• (MSRP - %) • Value • Price Sensitivity • Positioning • Cost position in industry		

Let us consider some of the more strategic aspects to this pricing decision. Most of these have to do with the dynamic nature of strategy. First, price advantage is often temporary. A competitor can easily (and quickly) drop (or increase) prices if their cost position is equivalent. Is this a dynamic that you want to engage in with your competition, or would other ways to compete be more effective over the

long-run? Second, consider the possible impact on the scale of your business. Is it appropriate to assume that fixed costs will remain the same, or will a price reduction require new investments in productive capacity? A third strategic consideration is how you want to position yourself in the marketplace. Is it important to have a consistent message as being a high-end or value provider? Price points send a message to consumers about what they might expect from your company and vehicles (just make sure you deliver if you are high end!)

You may want to frame the question of reducing (or increasing) price as one of many alternative “investments.” For example, you might estimate that cutting price will cost \$50 million in lost margin. Are there better uses for that investment? Can you instead capture that value, and reinvest it in either product (or service) enhancements or cost reduction opportunities? Or, conversely, would your target customers be willing to pay more for product improvements?

The main point is to think carefully about pricing. Consider the impact on your profitability and the potential for competitors to match the price. Think about consistency across your product lines with regard to positioning. Always understand the financial implications of your pricing choices. The pro-forma contribution and pro-forma income statement can be of great value in trying out different scenarios.

Unit Margin: Cost of Goods Sold (COGS)

The other half of the margin equation is your cost of goods sold (COGS) , also sometimes referred to as your variable cost. What impacts these costs? How can your firm strive to lower the unit cost of a product?

The cost of your vehicle is based on the specifications of the vehicle of size, HP, and ISSQ (which is an abbreviation for interior, styling, safety and quality), the technology capabilities of your firm, and the volume produced of that vehicle and vehicles in the same class (experience effects). All firms in the industry are also impacted by changes in labor and materials costs over time.

Unit Sales	x	Unit Margin	-	FC
(Demand x Market Share)	x	(Selling Price - COGS)	-	FC

- Intrinsic
- Economic
- Industry Dynamics

- Competition
- Product Fit
- Price
- Relative Spend
- Quality of Spend
- Service / Distrib.
- Preference

- (MSRP – %)
- Value
- Price Sensitivity
- Positioning
- Cost position in industry

- Size, HP, ISSQ
- Upgrades
- Technology
- Production Volume

There are several drivers of cost savings in StratSim including learning curve effects, cost savings through product design, and investments in technology capabilities.

Experience Curve Effects. The experience effect shows that with each doubling of cumulative volume, there is a fairly consistent percentage decrease in unit costs. In StratSim, there are experience curve effects present at both the brand level and the class level. Therefore, all things being equal, a firm that has higher production volume of a particular brand, or of a particular vehicle class, will enjoy a cost advantage over those products or firms with lower production. For example, if experience effects of

90% are present, and the unit cost of the 100,000th vehicle is \$10,000, the cost of the 200,000th vehicle produced will be \$9,000 (\$10,000 x .90).

Savings through Product Design. It is important to recognize that the product design process has an impact on unit variable costs. Part of this is determined by the specifications of the product, with higher values increasing the unit costs, all other things being equal. However, one of the major sources of lowering unit costs is provided through the upgrade process. When a vehicle is upgraded, along with creating the new product design, the engineers working on the product also attempt to find ways to lower the cost of the product without sacrificing the value that the customer perceives in the brand. Your firm can calculate the impact of the cost savings of an upgrade by choosing to upgrade a product and making no changes to the design. Compare the base cost on the original (“previous”) product design with the upgrade.

Savings through Investment in Technology Capabilities. Finally, a firm may invest in technology capabilities allowing a firm to create vehicles with higher specifications, while also decreasing costs on existing vehicles. An estimate of the savings based on your current product portfolio and projected sales is provided on the "technology capabilities" input screen. More specifically, a firm with higher capabilities in ISSQ is able to produce an identically specified vehicle at a lower cost than a firm with lesser capabilities in ISSQ.

It is essential that your firm considers the effectiveness of using these cost savings techniques in the context of your overall strategy. Cost savings are a net positive whether they improve your profit margin or are passed on to the customer in hopes of gaining more sales. However, remember that it is implementation of “smart” cost savings that is ultimately rewarded. Having the largest production capacity is only an effective cost savings if that capacity is used in production (and sold). Having a low-cost vehicle is only effective if consumers still want to purchase it. Thus, the successful manager is always looking for ways to lower cost, but keeps an eye on whether that cost savings is ultimately rewarded by affecting the bottom line.

Fixed Costs

Fixed costs are costs which do not fluctuate based on units sold, even if those costs are discretionary. Thus, investments in upgrades, new products, technology capabilities, development centers, new capacity, distribution, advertising, etc., generally are the same regardless of the level of unit sales in the market. This is not to say these investments will not have an impact on unit sales. The firm makes these investments in the aggregate and then unit sales occur. The amount of fixed cost per unit is just the division of the amount of fixed cost by the number of units sold. It is not an allocation of the amount per unit a priori.

Unit Sales		x	Unit Margin		–	FC
(Demand	x	Market Share)	x	(Selling Price – COGS)	–	FC
• Intrinsic • Economic • Industry Dynamics	• Competition • Product Fit • Price • Relative Spend • Quality of Spend • Service / Distrib. • Preference		• (MSRP – %) • Value • Price Sensitivity • Positioning • Cost position in industry	• Size, HP, ISSQ • Upgrades • Technology • Volume		• R & D • Capacity • Tech Invest • Distrib. • Adv. • Interest • Tooling etc.

Strategic and tactical questions your group should discuss pertain to which of the fixed cost investments should be made to positively influence the rest of the profit equation. Should the focus be on product improvement, corporate infrastructure, technology, cost reduction, marketing, distribution, etc? Generally, over the course of the simulation, your firm will likely invest in all of these areas, but the questions of priorities, direction, and financial benefit must be reviewed in the context of your overall strategy and objectives. As a group, you will also have to find the proper balance between short-term and long-term perspectives. Obviously, the best way to maximize profit in the short-run is to not invest in any long-term projects that have no immediate impact. The related corollary is also true, that a company that only makes short-term investments will face long-term challenges. StratSim reflects this need for balance in time horizons.

The above discussion relates to the strategic nature of alternative fixed investments. However, there are also important operational elements to manage as well. For example, your firm may find that fixed expenses are consistently running high and putting pressure on profits. How does this occur? One fairly common source of trouble is having too large an operation for your level of sales. To check for this, compare your sales with your capacity. If your sales are less than 70% of your capacity, you have a large fixed asset that is not productive and only adding to your on-going costs (depreciation and plant maintenance). If this is an on-going concern, you may want to consider selling / writing-off some of your plant capacity. Although resulting in a one-period loss, it may improve overall future performance. You also may want to check your expenditures on R&D and marketing versus the industry averages. If you are significantly out of line and it is not part of your strategy, you may want to rethink this level of expenditures.

Typically, firms that are struggling with high fixed costs relative to their total gross margin will find themselves going into debt. The associated debt interest payments then become another fixed cost to manage. The cost structure of the firm not only impacts the profit equation but also the firm's cash flow. Certain fixed costs that are charged to the fixed cost part of the profit equation are amortizations of investment in capacity, development centers, etc. The cash required for these investments is often expended earlier than the full charges to the profits equation. Thus, the firm will need to be concerned with both the profit and cash flow aspects of fixed costs.

Your firm will want to try to make sure that it has sufficient funds from operations available early in the simulation to fund any long-term projects and weather any challenging periods. This may not be possible and thus the appropriate use of the debt and equity markets to satisfy the firm's cash needs may be necessary.

Last, there are some "hidden" costs of doing business that you should try to control. These include on-going inventory write-offs, high retooling costs and the like. Generally this is due to poor forecasting, which, as was discussed earlier, is not a simple issue. However, as you gain experience and make better use of the tools, you'll find you can improve your ability to manage these operational issues.

Monitoring Performance and Pro-Forma

The best way to analyze the profit equation during the decision-making process is by using the pro-forma analysis. The pro-forma reports use your forecasts and the cost of your decisions and allow you to calculate financial statements based on these assumptions. It is important to recognize that your forecasts are what drive unit sales in the pro-forma analysis; the simulation does not forecast sales for you. However, the pro-forma analysis will allow you to test your assumptions about the profit equation

and basically answer the question, “If we make these decisions and achieve our forecasts, what will be the financial outcome?”

Once you have made your decisions and the simulation is advanced, compare your estimate of results from the pro-forma (sales, market share, net income, etc.) with actual results. If there is a significant difference between the two, you should find out why. Sometimes results will be better than expected. Other times (and probably more often), results will be less than you hoped. Use downturns as motivation to better understand your business.

Long-Term Planning in StratSim

In StratSim and strategy in general, decisions often take time to implement and to have an impact in the marketplace. This section discusses some of the most important timing and staging issues in StratSim to allow you to plan your timeline accordingly. Some decision impacts are immediate (that is, a decision is made and after the simulation is advanced, it impacts the results) while the initial impact of other decisions may be delayed for up to two additional advances. In addition, some decisions have longer-term effects. New products sell for multiple periods; advertising has both an immediate and long-term effect through building brand equity; investment in technological capability, development centers, dealer capacity, plant capacity, etc. have longer term impacts. Finally, remember that costs and cash flows do not always match up with these effects, so one must also take into consideration availability of funding for various investments.

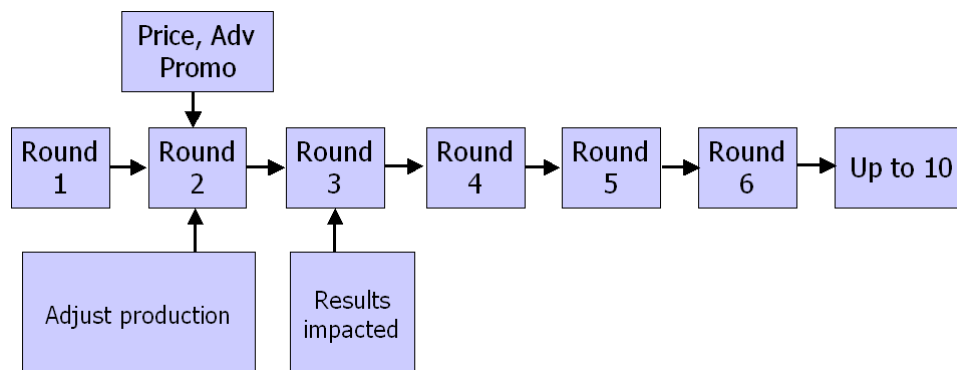
It is essential that you understand the staging of various decisions for planning purposes. The graphics below should help you with this staging process. You may also want to review the table in the case that covers product development. The following graphics also show related issues that should also be considered (such as disposing of inventory and adjusting production when a minor upgrade is implemented).

Timelines

Note: All of the examples below are for a simulation that is in the 2nd round. In other words, teams are reviewing period 2 results and making decisions for period 3.

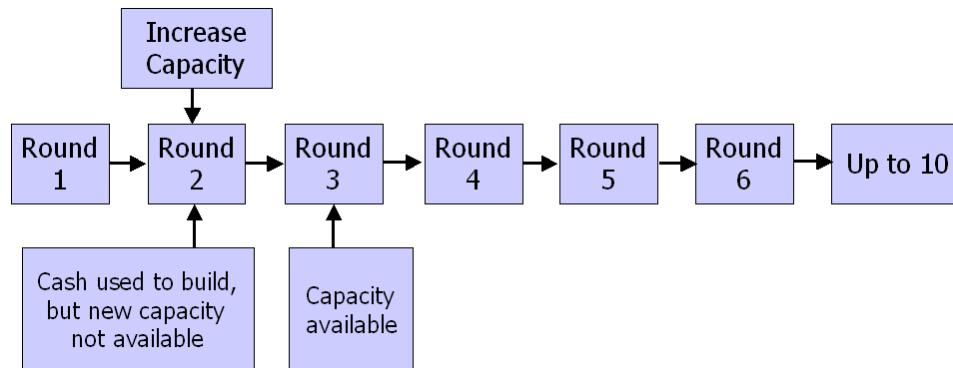
Marketing Mix Decision Timeline (Immediate)

Marketing mix decisions (pricing, advertising, promotion) have immediate impact on results and therefore production should be adjusted based on the expected impact of the revised decision as shown below.



Capacity Decision Timeline (Capacity Available in the Following Year)

When adding capacity, cash is used to build the additional productive capacity immediately, but the additional capacity cannot be used until the following decision period. Remember there is a maximum change of 50% of current capacity in any period. When selling off capacity, the loss shows up as an extraordinary item after the advance and there is a cash inflow of the sales price of the plant (50% of book value).



Product Development Decision Timelines (Immediate to 3 years)

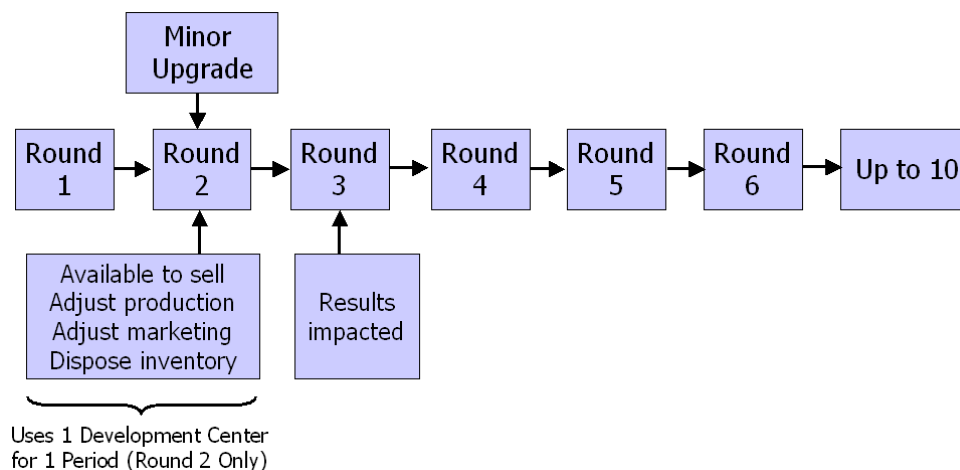
For all upgrades and new products shown below, a simple rule to remember is that:

A brand will become available for sale in the last year it is in the development center. On the development center screen it will show a message such as “launch now”.

Now we will review each of the product development options in more detail.

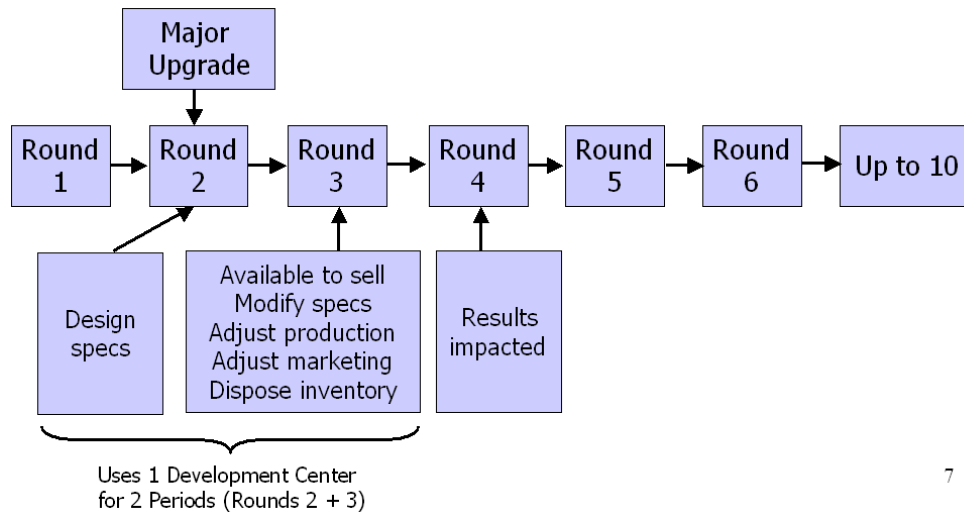
Minor Upgrade (Launch Now)

Minor upgrades are the fastest way to get product changes into the market. Basically, the same period you initiate the minor upgrade is the period you also prepare for the upgraded brand’s introduction into the market for sale. A minor upgrade is in a development center for one period. Also remember that any existing inventory will be written off at a cost of approximately 15% and that production must be adjusted immediately upon initiating the minor upgrade.



Major Upgrade (Launch after 1 Advance)

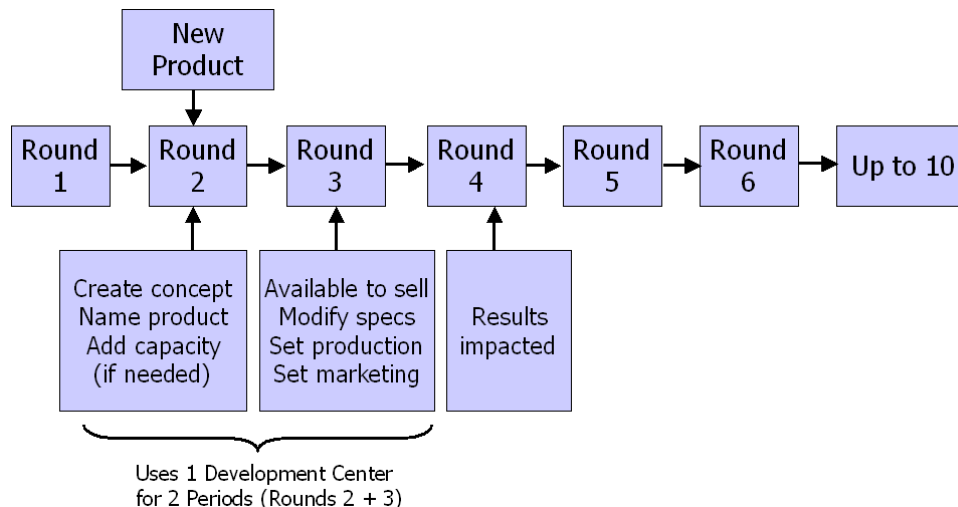
Major upgrades take one period longer than minor upgrades, but also allow you to make more significant changes to the product. They occupy a development center for two periods rather than one period as in minor upgrades. Because major upgrades take an extra period, you will be charged half of the total development cost in the first period of development and the remainder in the second period. Also note that you may make additional changes to the specifications in the second year of development and that any existing inventory will be disposed in the second period when the major upgraded vehicle is offered for sale in the market.



7

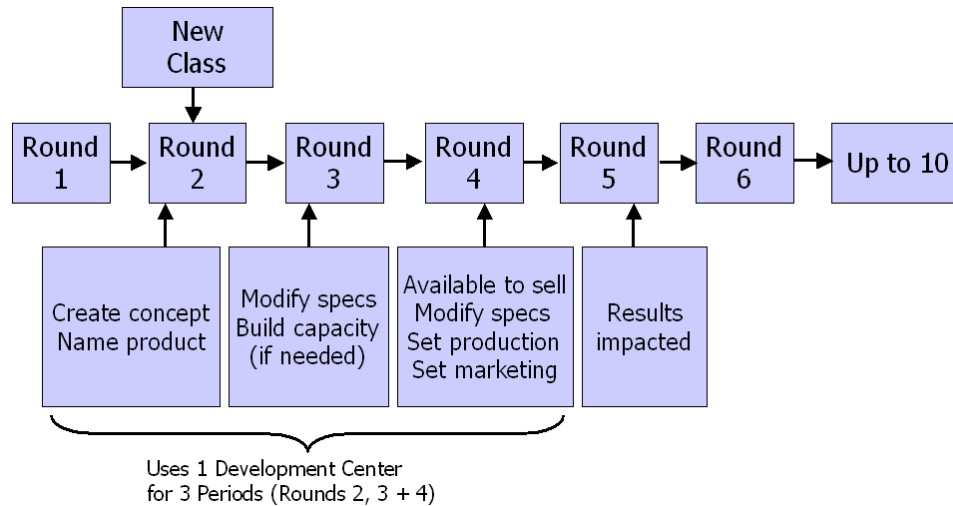
New Product in the Same Class (Launch after 1 Advance)

New product in the same class has the same timing as a major upgrade but without the complication of potentially disposing of inventory. A development center will be occupied for two decision periods and the development costs will be divided equally between the two periods. The one additional consideration here may be adding capacity (if needed – it is not a requirement if you have sufficient capacity to produce all your product lines). For a new product where you already have developed a vehicle in the same class, the decision to add capacity should be done in the same period that you start product development as shown below.



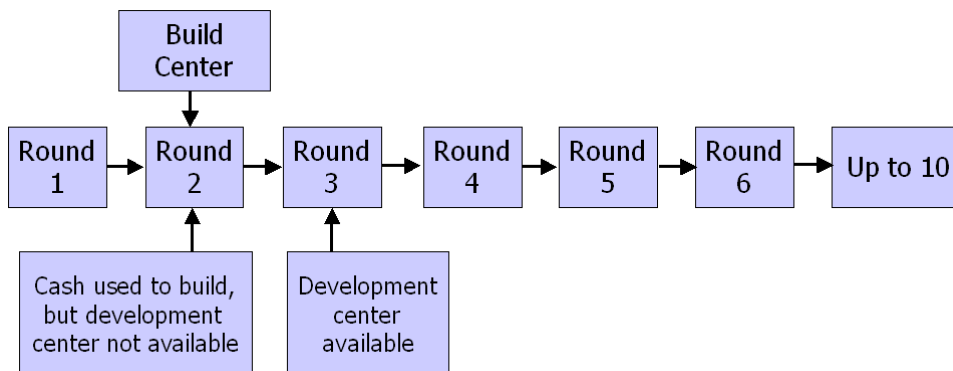
New Product in a New Class (Launch after 2 Advances)

New product in a new class works much the same way as a new product same class, except that it takes one additional period to complete. In this situation, capacity (if needed) would be added the period after the product development project is initiated. Also note that a development center will be occupied for three rounds. So it is important to plan accordingly. Development costs will be spread equally over the three periods it resides in the development center.



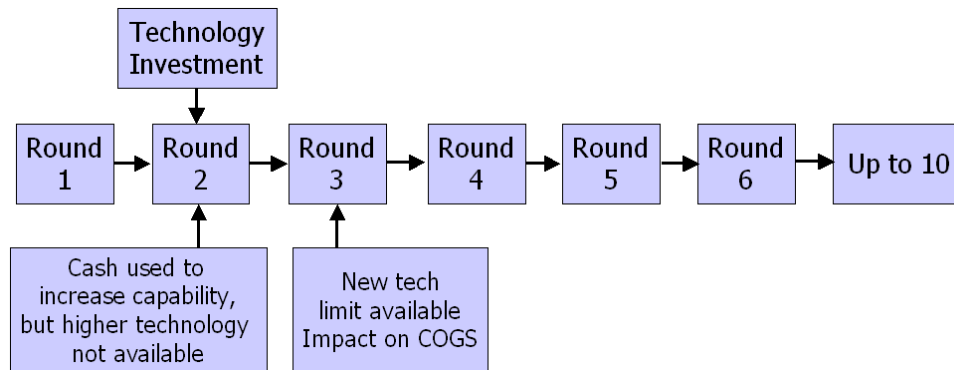
Development Centers (Center available after 1 advance)

If you find the need to add a development center, you must think ahead as it takes one period before it is available to be used for development projects. However, the cash used to build the center will be used and expensed immediately. The firm needs to make an assessment as to the number of development centers that will be needed, when they will be needed, and how to raise the funds necessary to build them. Only one new development center may be added in a given period and there is a maximum of five total centers for any firm.



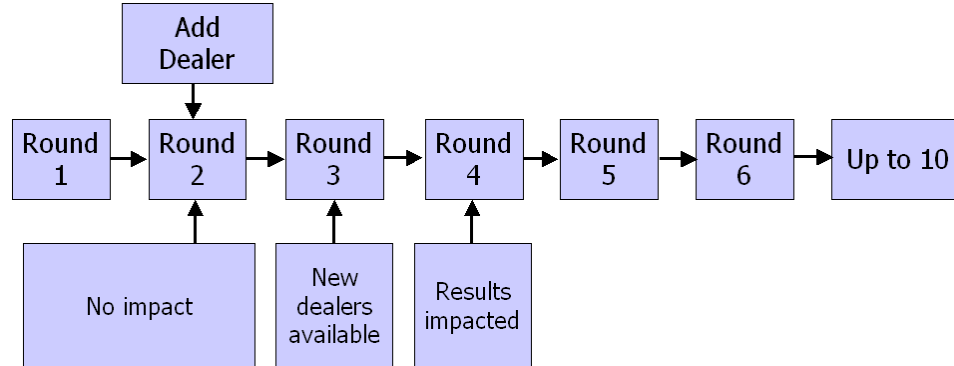
Technology Investments (New Limits available after 1 advance)

Investing in technology works much the same way. It will take one year to increase that capability. Remember that investing in technology only increases your ability to design a vehicle with higher specifications. It does not automatically implement those changes to your existing vehicles. You must explicitly use upgrades to accomplish this. So again, it is important to plan ahead.



Dealership Decision Timeline

Dealerships also take a year to build. This delay makes sense as it takes time to build new buildings and hire personnel to expand your channel presence.



Conclusion

To summarize what was covered in this section, here are six key points to review with your group as you work through the simulation.

1. Understand the business situation through internal and external analysis
2. Create an agreed upon vision and mission for your company
3. Establish a process for group analysis and decision-making
4. Use the concept of the profit equation to better understand the dynamics and financial implications of your alternative decisions
5. Use the pro-forma reports to check your sales and financial assumptions
6. Make sure part of your long-term planning process takes into account the time required to complete various strategic decisions

Using this strategic checklist will help your group stay on track strategically and help you avoid many of the reactive pitfalls that naturally occur as competition intensifies. Best of luck managing your company!

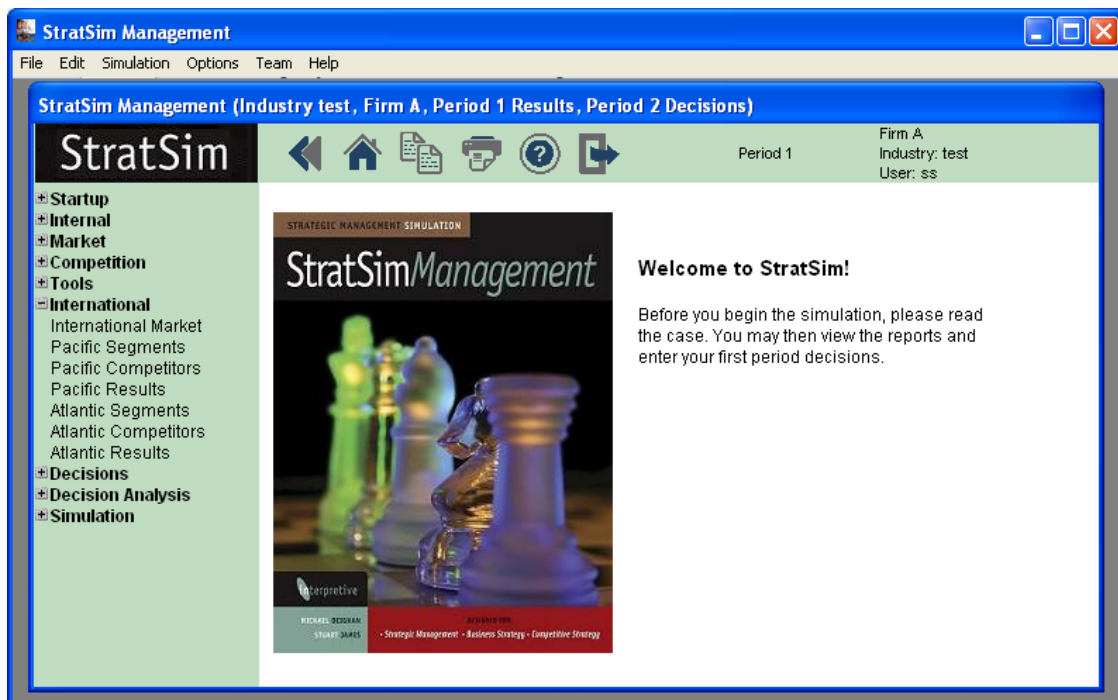
Appendix A: Optional International Module

In most courses, StratSim is only concerned with the domestic market. However, your instructor may have chosen to include the international component of StratSim that adds several new management and marketing issues to consider. In some cases, the international module will be introduced later in the simulation; in others, it will be available from the beginning. Your instructor will provide specific information regarding the timing of the international module.

Though there are a myriad of ways to take advantage of international opportunities, StratSim provides four general types of international decisions:

- **Marketing:** International Market Entry (*Distribution and Marketing Controlled by Firm*)
International Alliance (*Distribution and Marketing Controlled by Partner*)
- **Sourcing:** Direct Foreign Investment (*Production Facilities Owned by Firm*)
International Alliance (*Production Facilities Owned by Partner*)

Market and competitive reports are not as detailed as in the domestic market, but do provide you with enough information to make informed strategic decisions. The goal with the international module of StratSim is to allow students to experience some of the most relevant aspects of international business without too many options which might be somewhat overwhelming. The screen for the international menus is displayed below.



International – International Markets

The Atlantic and Pacific regions offer good long-term potential for sourcing and/or selling. However, if pursuing international opportunities through a strategic partner, one has to consider the fit of your company to the potential market, potential sourcing advantage, and potential partner. Please note that although these regions may bear some resemblance to actual regions, one should carefully analyze the market information and not rely on perceived similarities with actual countries or regions. An example of the INTERNATIONAL – INTERNATIONAL MARKETS report is shown below.

International Market – Period 1		
	Pacific	Atlantic
Population (mill.)	195	15
Per Capital GDP	\$8,205	\$26,667
GDP Growth Per. 1 (current)	7.5%	1.5%
GDP Growth Per. 2 (forecast)	6.0%	1.5%
Inflation	4.0%	3.0%
Vehicle Ownership	2.0%	70.0%
Vehicle Sales (000's)	340	597
Number of Competitors	3	3
Shipping Cost per Unit	\$520	\$515
Import Tariff	5.0%	0.0%
Export Tariff	5.0%	0.0%
Production Cost Index	0.78	1.05

History

Atlantic Region

The Atlantic Region has fewer consumers and is a more mature market based on current and expected growth rates. However, with higher per-capita income and vehicle ownership, the Atlantic Region also offers good potential for a company with the right vehicles. As a sourcing option, the Atlantic Region is known for vehicles with excellent styling and features. However, as a more developed region, it does tend to have higher labor and materials costs for production.



Pacific Region



The Pacific Region, with its large population base and rapidly growing economy, offers high growth possibilities. However, people in this region still have a fairly low per-capita GDP (measure of a standard of living) relative to the domestic market and Atlantic region. Economists in the region expect this to rise considerably in the coming years along with vehicle ownership. Labor costs of production are lower in this region, and labor is a little less skilled, but improving rapidly, especially as experience grows. Overall, the Pacific market offers some great long-term potential, but be aware the competition is likely to be fierce in this more price sensitive market.

International – [Region] Segments

The SEGMENTS report provides an overview of the market opportunities within a particular region based on vehicle class. This includes an estimate of the potential demand for different vehicle classes, a long-term projected growth rate, and a summary of market research that measures average customer preferences. Each simulated year, these values will be updated based on the range of results from several regional market research firms.

Pacific Segments – Period 1					
Vehicle Class	Demand Range (000's)	Size Range	HP Range	Price Range	5 Year Growth (Percent)
Economy	327 to 394	3 to 13	66 to 80	8,045 to 8,857	53 to 56
Family	176 to 216	23 to 33	108 to 132	11,733 to 12,929	49 to 51
Luxury	24 to 30	48 to 58	199 to 239	38,986 to 42,938	65 to 67
Sports	12 to 15	17 to 27	180 to 216	21,779 to 24,067	40 to 42
Minivan	72 to 88	32 to 42	145 to 175	12,270 to 13,518	24 to 26
Truck	113 to 139	88 to 98	148 to 184	18,394 to 20,422	23 to 25
Utility	8 to 10	33 to 43	104 to 129	22,473 to 24,761	64 to 67
AEV	13 to 15	13 to 23	91 to 113	14,317 to 15,773	66 to 68

Several market research firms were hired to run studies on customer preferences. The ranges represent the results from this study. Each year the market research is surveyed with a new sample of potential buyers. Demand range indicates underlying potential demand, but much depends on the product offerings, pricing, distribution, and support of the products.

History

The “Demand Range” is based on potential sales of a particular vehicle class if the products meet the needs of the customer, the products are priced appropriately, and the products are supported well (distribution and marketing). The 5-Year Growth rate is the projected annual growth rate over the next five years based on economic forecasts and market research for a particular vehicle class.

International – [Region] Competitors

The International Competitors report provides an overview of all the companies that sell vehicles in the chosen region as shown below. Once your firm enters a region, you will be able to review your income statement for that region by clicking into the link for your company name. These same regional figures are also accessed by clicking the region link in your Internal Income Statement.

Pacific Competitors – Period 1							
	Units Sold (000's)	Revenues (mill.\$)	Market Share (% of \$)	Net Income (mill.\$)	Mkting Expend. (mill.\$)	Dealers	Alliances
Xihuan	145	1,444	38.3%	-141	27	150	
Yige	155	1,674	44.4%	-10	29	150	
Zao	39	656	17.4%	-131	21	120	

History

Clicking on one of the company links will bring up a more detailed income statement as shown in the detail screen below. Note that this is a much simpler income statement than in the domestic region.

Pacific Competitors – Period 1			
Xihuan			
	Per. 0	Per. 1	
Revenue	\$1,144	\$1,444	
COGS	\$946	\$1,187	
Gross Margin	\$198	\$257	
Marketing	\$27	\$27	
Development	\$394	\$0	
Overhead	\$367	\$371	
Net Income	\$-590	\$-141	
Technology	3/3/3/3	3/3/3/3	
Distributors	150	150	
Awareness	28%	31%	

Note: dollar amounts are in millions.

Print

After entering a region or building a plant offshore, the Company Income Statement will show a line item with the net income for the region. You may click on the link provided there to access the detailed statement of your activity in the region.

Note: Several screens in this section have smudged areas to conceal decision inputs.

International – [Region] Results

The International Results report provides a detailed description of each vehicle in the regional market and their sales. A sample of this report is shown below. Clicking on a heading link will sort the listing by vehicle name, class, unit sales, price, or size. You may also click on a vehicle name to see a history of sales for the vehicle.

Pacific Results – Period 1

Vehicle	Class	Unit Sales (000's)	MSRP	Size	Eng. (HP)	Int	Styl	Safe	Qual
Xiexie	Minivan	18	\$15,400	25	120	1	2	1	2
Xing	Economy	54	\$9,800	15	100	2	2	2	2
Xuesheng	Economy	73	\$8,700	7	75	1	1	1	1
Yidian	Economy	105	\$9,000	5	75	1	1	1	1
Yizhi	Family	51	\$14,400	25	100	1	1	2	2
Zhaohao70	Truck	28	\$17,300	70	200	1	1	1	1
Zing	Minivan	11	\$15,600	35	130	1	1	1	1

History

When you sell a vehicle into a region, either through a partner or using your own distribution network, the sales will appear on the Internal Product Contribution report (shown below) as well as the International Results report.

Clicking on a vehicle link in the Product Contribution report will take you directly to that vehicle’s sales history in its associated sales region.

Exports to partners are counted as direct sales on the firm's domestic income statement, as shown here . . .

Product Contribution

[Firm A Domestic Sales](#)

Vehicle	Units (000's)	Dealer Sales (mill.)	Direct Sales (mill.)	COGS (mill.)	Gross Margin (mill.)	Adv Promo (mill.s.)	After Mktg (mill.)
Alec	100	\$1000	\$0	\$600	\$400	\$50	\$350
Alfa	200	\$1200	\$0	\$700	\$500	\$100	\$400
Awesome	300	\$1500	\$0	\$900	\$600	\$150	\$450
Z-Alec	50	\$500	\$500	\$300	\$200	\$20	\$180
Total	650	\$3200	\$500	\$1900	\$1700	\$220	\$1380

Note: Dollar amounts are in millions.

Per Unit Contribution for Domestic Sales

Vehicle	Per Unit Revenue	Per Unit COGS	Per Unit Margin	Margin Pct.	Adv Promo	Per Unit Contrib.	Contrib. Pct.
Alec	\$1000	\$600	\$400	40%	\$50	\$350	35%
Alfa	\$1200	\$700	\$500	42%	\$100	\$400	33%
Awesome	\$1500	\$900	\$600	40%	\$150	\$450	33%
Z-Alec	\$500	\$300	\$200	40%	\$20	\$180	36%
Total	\$3200	\$1900	\$1300	41%	\$220	\$1080	34%

Note: Dollar amounts are per unit.

[Atlantic Sales](#)

Vehicle	Units (000's)	Revenue (mill.)	COGS (mill.)	Gross Margin (mill.)
Alec	1	\$100	\$60	\$40
Total	1	\$100	\$60	\$40

Note: Dollar amounts are in millions.

Sales through the firm's own distribution network in a region will show on the income statement for the region, as displayed here . . .

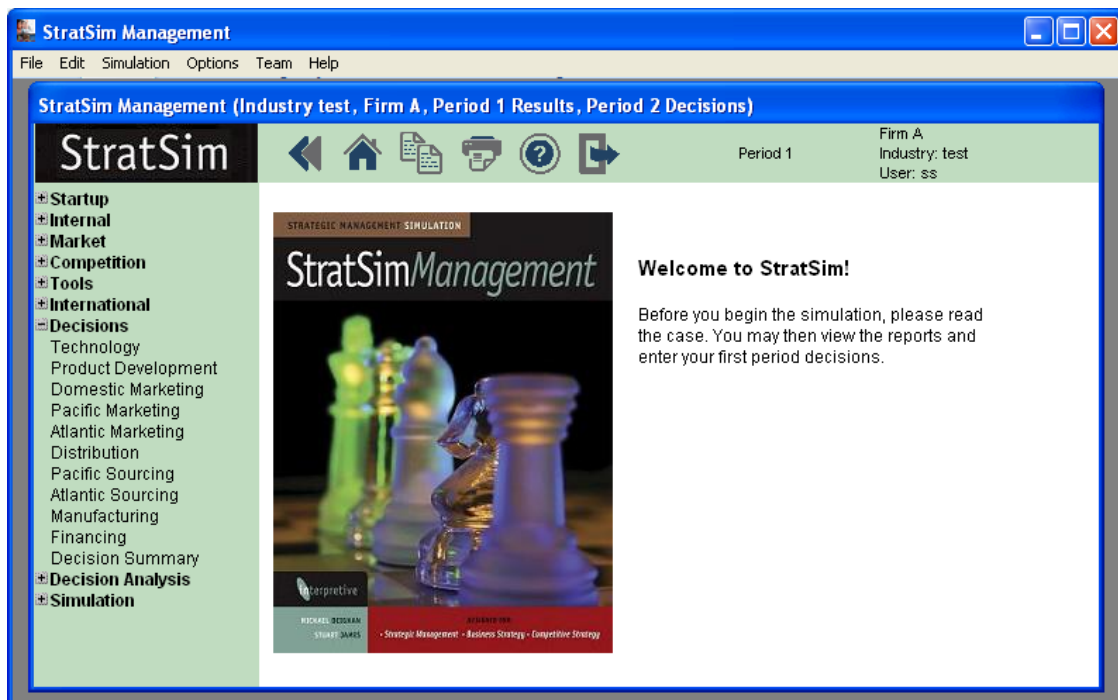
International Decisions

StratSim provides multiple international decisions for your firm in the areas of marketing and sourcing. Be aware that when your firm decides to expand internationally, the choices you make may limit other international options. Entering a region by building your own distribution network will preclude any future agreements with a partner in the region. Other decisions, such as building a plant, may not prevent you from forming alliances, but may make them more difficult. For example, if you formed an alliance with company X to source an economy vehicle, and then you want to source a family vehicle from company Y in the same region, your existing relationship with X may make it difficult to reach an agreement with Y. Thus, it is important to consider the strategic ramifications of the various decisions with regard to sourcing, marketing, and partnerships.

There are four decision menus available in StratSim, accessed by clicking on DECISIONS main menu as shown on the screen below.

- Pacific Marketing
- Atlantic Marketing
- Pacific Sourcing
- Atlantic Sourcing

For each marketing or sourcing decision in a region, you will need to decide if you will partner with one of the existing firms in that region or go it alone.

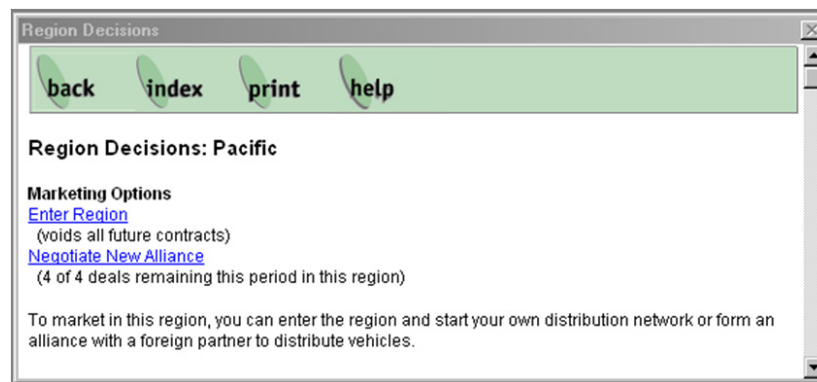


The pages that follow review each of the decision options available within any particular region.

Decisions – (Region) Marketing – Enter Region

At the beginning of the simulation, none of the domestic firms operate in the foreign markets. Therefore, one of your first decisions is whether or not you want to market vehicles in a region, and if so, do you want to go it alone by entering the region with your own marketing and distribution network, or through an alliance with a local partner who is already established in one of the international regions. As noted previously, your firm has a limited number of “deals” it can make in each region (a total of 4 deals for both Sourcing and Marketing options). So, make sure your firm recognizes that it has limited resources with regard to negotiations and choose your partner and offer terms carefully. Choosing to enter the region on your own will prevent you from negotiating an alliance with a partner.

The first time you choose to market in a region, you will see the following screen with the options of [Enter Region](#) and [Negotiate New Alliance](#), as shown in the screen shot below. Let’s start by discussing how to enter a region on your own, without a partner.



To enter the market (region) without a partner, click the [Enter Region](#) link and an entry screen opens, as shown below. Here you will need to enter the number of distributors to add and a budget amount for marketing support expenses. For ideas on establishing your budget and number of dealers to add, refer to the International Competitors report. This report displays the amount each competitor is allocating to marketing expenses and the number of dealers each maintains in the region.

The screenshot shows a dialog box titled "Region Marketing Decision" for the "Pacific" region. The text inside says "Enter the number of distributors to add along with marketing support." There is a checkbox labeled "Distribute in Region (uncheck to exit region)" which is currently unchecked. Below this, there are two input fields: "Add Distributors" and "Marketing Support (mill\$)". The "Marketing Support" field has the value "0" entered. At the bottom of the dialog box, there are "OK" and "Cancel" buttons.

Decisions for the international module are made at a very high level, limiting the number of variables thus making the options more manageable. For instance, “Add Distributors” is a single value in each region, representing the entire number of regional distributors. Similarly, the amount you enter for “Marketing Support” is for all brand advertising, promotion, and corporate advertising expenses in that region. You will want to view the International Competitors report to help you decide on the number of distributors and the amount of marketing support. It takes one year to build your dealership network and set up your international marketing presence.

After you have entered the region and the simulation has been advanced, your firm will have the opportunity to launch your own products into this market, as shown in the screen displayed below. Note the new [Add Vehicle to Market](#) link.

Region Decisions: Pacific

Marketing Options

[Add Vehicle to Market](#)
[Exit Region](#)

Marketing Decisions

Curr. Distributors	20
New Distributors	0
Marketing Support (mill)	\$200
Cost (mill)	\$200

You may now select vehicles to distribute in the region.

NOTE: Entering a region by building your own distribution network will preclude any future agreements with a partner in the region. The negotiation link is no longer is displayed.

To add a vehicle to sell in this market, click the [Add Vehicle to Market](#) link. Select a vehicle, then enter the selling price, and the number of production units in the window (as shown at left, below). If you want to add more dealers or adjust your marketing expenses budget for the region, click back into the [Marketing Support](#) link to adjust these numbers as shown at right, below. Be sure to adjust the production schedule for the vehicle based on your estimated sales in the region.

Pacific

Select a vehicle, the selling price and an estimate of the unit sales.

Vehicle:

Price:

Est. Units (000's):

OK

Cancel

Region Marketing Decision

Pacific

Enter the number of distributors to add along with marketing support.

☒ Distribute in Region (uncheck to exit region)

Add Distributors

Marketing Support (mill\$)

OK

Cancel

The screen below shows a vehicle being distributed in a region.

Region Decisions: Atlantic

Marketing Options

[Add Vehicle to Market](#)
[Exit Region](#)

Marketing Decisions

Curr. Distributors	20
New Distributors	0
Marketing Support (mill)	\$200
Cost (mill)	\$200

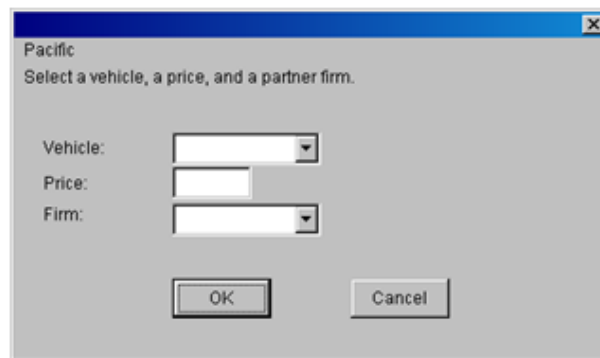
Vehicles Marketed

Vehicle	Est. Unit Cost	Shipping + Tariff	Delivered Cost	Selling Price	Est. Units (000's)
Alec	\$10000	\$200	\$10200	\$12000	20

Decisions – (Region) Marketing – Negotiate New Alliance

An alternative approach to building a marketing and distribution presence on your own is to partner with a local manufacturer who will import, distribute, and market your vehicles in the international market. Using this approach allows you to get your vehicles to market faster by using the local firm's existing distribution and marketing network. Each marketing alliance agreement is for a one-year term and each will need to be renegotiated when they expire. Note that the contract price is the amount you receive for each unit; your partner pays for shipping and tariffs.

Similar to the international "Sourcing" option with a partner, your firm is making offers to local firms in a specific international region. Choose [Negotiate New Alliance](#) and then make an "offer" to a potential partner as shown in the screen below.



The screenshot shows a dialog box titled "Pacific" with a close button (X) in the top right corner. The text inside says "Select a vehicle, a price, and a partner firm." Below this, there are three input fields: "Vehicle:" with a dropdown arrow, "Price:" with a text box, and "Firm:" with a dropdown arrow. At the bottom, there are two buttons: "OK" and "Cancel".

The potential partner will evaluate your offer and either accept or give you feedback about your offer. Note that negotiation messages will appear on the right side of the screen under "Status" as can be seen on the sample screen shown below. The types of negotiation messages you might receive are the same as those listed in the previous section describing international regional "Sourcing" options.



The screenshot shows a window titled "Region Decisions: Pacific". It contains the following text:

Marketing Options
[Enter Region](#)
(voids all future contracts)
[Negotiate New Alliance](#)
(3 of 4 deals remaining this period in this region)

To market in this region, you can enter the region and start your own distribution network or form an alliance with a foreign partner to distribute vehicles.

Marketing Alliances

Vehicle	Partner / Offer	Contract Price	Shipping	Est. Units (000's)	Status
Z-Alec	Zao 0/3	\$10,000	FOB (Domestic)	100	negotiating renewal

All agreements with your alliance partner are for one year and will need to be renegotiated when they expire. The contract price is the amount you receive for each unit; your partner pays for shipping and tariffs.

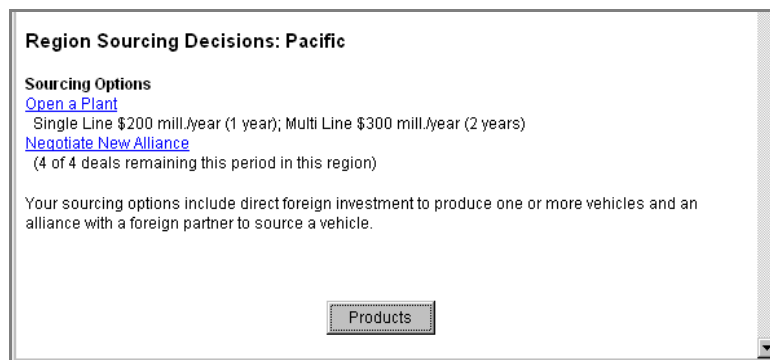
If the potential partner refuses your offer, you can try to renegotiate with this partner or select [Negotiate New Alliance](#) to begin negotiations with another partner. Once your partner has agreed to the export agreement and you have accepted it, be sure to adjust your production schedule to include the estimated vehicle sales. To drop a partner alliance, simply do not renew the contract when the offer is up for renewal, after the simulation has been advanced.

Decisions – (Region) Sourcing – Open a Plant

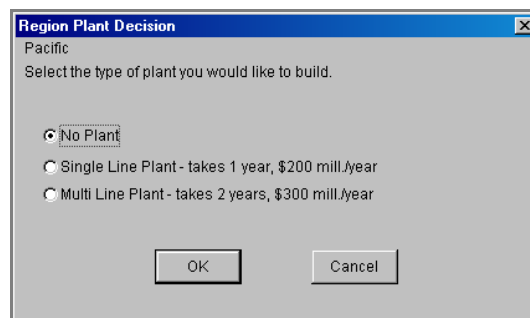
At the beginning of the simulation, all production takes place in domestic plants. Capacity is divided among current vehicles based on the production as designated by your firm. With the international module, your firm has the option of opening a plant in a foreign region. In addition, your firm has the option of opening a single-line plant, where only one vehicle can be produced, or a multi-line plant, where more than one vehicle may be produced. Thus, in the “Open a Plant” decision for sourcing there are two steps:

- Decide on a region for your plant
- Build a single-line or a multi-line plant

Each of these choices has different associated costs and benefits. The benefits may be a lower cost vehicle and no shipping or tariffs when selling in a foreign market. The costs may be shipping costs to domestic or other foreign markets and tariffs. The single-line plant only allows production of one vehicle, but the plant will be available in one year. The multi-line plant takes two years but has higher overhead expenses than the single-line plant. *Please note that all production for a particular vehicle must take place in **one location**, either foreign plant or domestic plant. So your firm will have to make a decision about the best single location for production of a vehicle.*

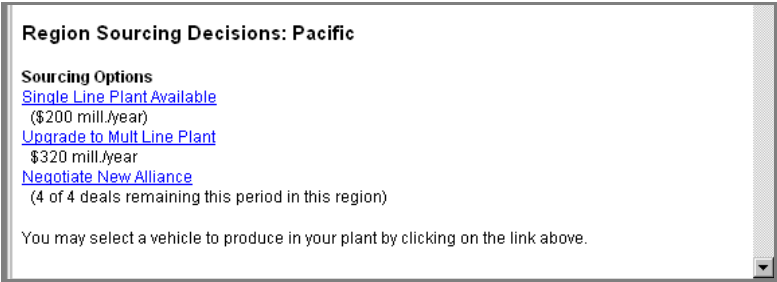


Click on the [Open a Plant](#) link in the appropriate region, and the plant choice dialog box will appear, as shown below. You may change your selection at any time during the decision period, but once the simulation is advanced, the plant will be built and your firm will be charged the full overhead whether it is in use or not. So, be sure to think through this decision carefully as part of your overall strategy. The plant costs \$200 million/year for a single line plant and \$300 million a year for a multi line plant. The costs are expensed yearly and can be seen in the “overhead” item in the region’s income statement.

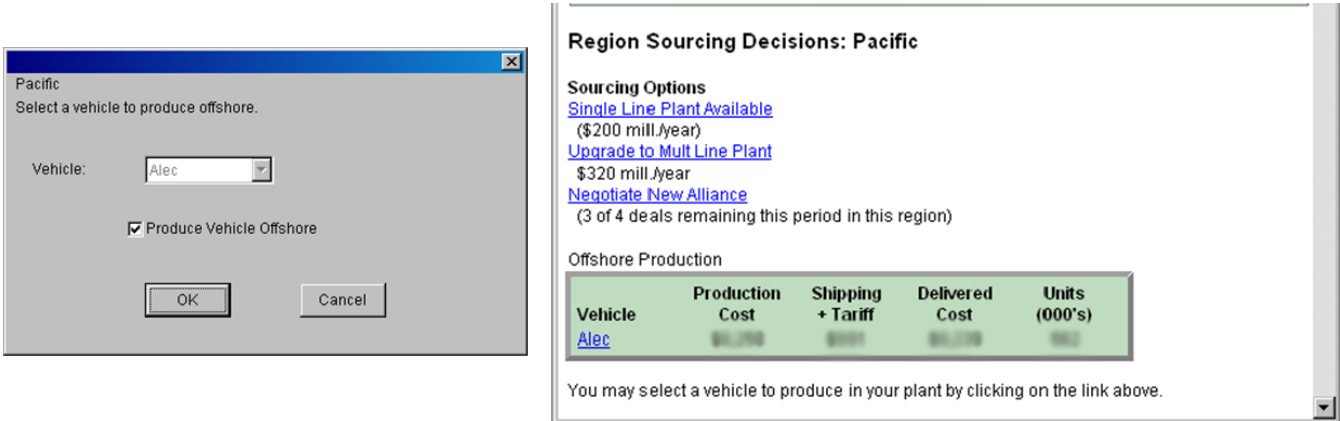


Decisions – (Region) Sourcing – Add Vehicle into Production:

After you make your decision to open a plant, the plant status will display on the Sourcing Decisions screen for the region. When the plant is available for production (one year for a single-line plant; two years for a multi-line plant) you may choose a vehicle to produce in the plant. For a single-line plant, you will also have the option to upgrade to a multi-line plant, allowing you to produce more than one vehicle, but with a higher overhead cost. The upgrade takes one year to complete.



To begin production on a vehicle in your new plant, select the [Plant Available](#) link. A vehicle selection dialog box opens, as shown below, at left. Use the drop-down menu to select the vehicle you want to put into production in your new plant. If you begin production in an international region, all production for that vehicle moves to the international plant. This will be reflected in your Company Production report.



This decision only affects where your vehicle is produced. Remember to change the vehicle’s production schedule on the Manufacturing decision screen in the Home Region. If you decide to move production back to the domestic plant, click on the vehicle link and uncheck the “Produce Vehicle Offshore” box. A screen showing a vehicle being produced in an offshore plant is shown above, right.

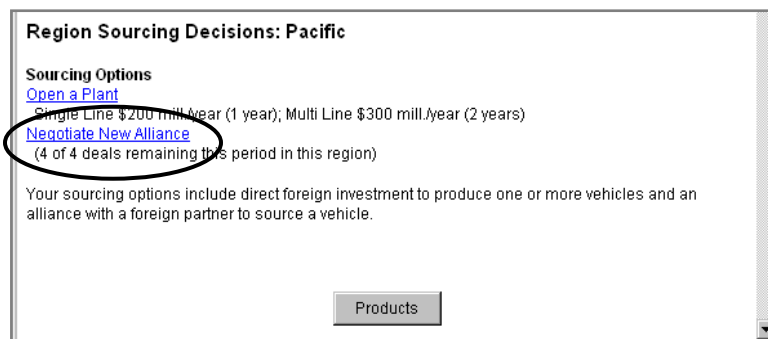
Decisions – (Region) Sourcing – Alliance

An alternative approach to internal product development and domestic production is to source an existing vehicle from a firm in another region for import to the domestic region. There are several firms in each region to choose from and each firm produces multiple vehicles. Thus, there are many potential vehicles to choose from, each with different characteristics and costs. Your firm's job, if you choose to use this sourcing approach, is to find a good partner (firm level) and a good vehicle (product/market level).

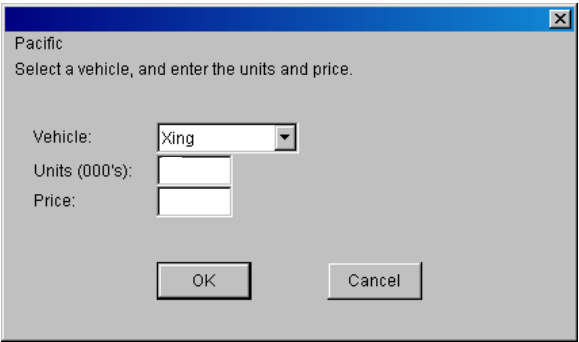
There are three important rules to consider in StratSim when negotiating these alliances. First, your firm has a limited number of "deals" it can make (the "4 of 4 remaining" message) per period in each region. The number of deals is a total number of deals for both Sourcing and Marketing options. So, make sure your firm recognizes that it has limited resources with regard to negotiations and choose your partner and offer terms carefully. Second, any agreement, even if it has not been accepted, uses one of your available "deal" slots during the period in which it was initiated. Third, each agreement is for one year at the end of which you may choose to renew. Thus, accepted deals will use one of your available slots in the next period as well. However, once a deal has been accepted by a partner, a renewal will be agreed to without further negotiation as long as you do not change the price too dramatically (beyond the expected change due to inflation). Additionally, should you forget to renew an alliance and the simulation is advanced, that alliance is broken and must be completely renegotiated and begun anew.

There are two aspects the potential partner will want to consider. First is the potential match with your firm. Are you a good strategic partner for this company? Are there other potential sourcing / marketing options that you both might find mutually beneficial? Does your potential partner see you as a long-term strategic partner, or do your actions make it appear that the partnership is more likely to be a short-term alliance of convenience? The second aspect is the actual terms of the deal. Will your potential partner make a profit on the agreement? Does it have significant enough volume to make the alliance with your firm worthwhile?

To begin the sourcing alliance process, click on the [Negotiate a New Alliance](#) link in the screen, as shown below.



After selecting the new alliance link, a dialog box will appear (as shown below), allowing you to make an offer to a firm to source a vehicle from them at a specific price and volume. In choosing a price, keep in mind that shipping and tariff fees will be added to the contract price in calculating the delivered cost of the vehicle. The potential partner will evaluate your offer and either accept, or provide feedback for rejecting, the offer.



A screenshot of a dialog box titled "Pacific". The text inside says "Select a vehicle, and enter the units and price." There are three input fields: "Vehicle:" with a dropdown menu showing "Xing", "Units (000's):" with a text box, and "Price:" with a text box. At the bottom are "OK" and "Cancel" buttons.

Some feedback status messages you may receive are listed below:

- Agreement accepted
- Not what we're looking for in a partner
- Value of deal not high enough
- Good offer, need to think about it
- Starting negotiations
- Negotiating renewal
- Waiting for your acceptance

A sample screen with one vehicle in failed negotiation is shown below. Note the status message states that the value of the deal was “not high enough”.

Region Sourcing Decisions: Pacific

Sourcing Options

[Open a Plant](#)
Single Line \$200 mill./year (1 year); Multi Line \$300 mill./year (2 years)
[Negotiate New Alliance](#)
(3 of 4 deals remaining this period in this region)

Your sourcing options include direct foreign investment to produce one or more vehicles and an alliance with a foreign partner to source a vehicle.

Sourcing Alliances

Vehicle	Partner/ Offer	Contract Price	Shipping + Tariff	Delivered Cost	Units (000's)	Status
A-Xing	Xihuan 1/3	\$1,000,000	\$1,000,000	\$1,000,000	100	value of deal not high enough

All agreements with your alliance partner are for one year and will need to be renegotiated when they expire. The contract price is the amount you pay your partner; you are responsible for shipping and tariffs.

To renegotiate with this same partner, click back into the [vehicle name](#) and a dialog box will open, as shown at left, below. Use this window to adjust the number of units and/or the price. Note you cannot change the vehicle at this stage without beginning a completely new alliance. Click “OK” to activate your revised offer.

Pacific

Select a vehicle, and enter the units and price.

Vehicle:

Units (000's):

Price:

OK Cancel

StratSim

Your partner has agreed to the terms. It is now up to you to accept the agreement.

OK

When a partner firm has accepted your offer, a message alerts you as shown at right, above. *NOTE: Clicking “OK” in this message box only means that you acknowledge their acceptance of your offer; it does not finalize the agreement.* To finalize the agreement, you must click back into the hyperlink for the associated vehicle listed on the Region Sourcing Decision screen (as shown below) and then click the [Accept] button in the message window that opens. Note: You cannot undo this once you have accepted the offer.

Region Sourcing Decisions: Pacific

Sourcing Options

[Open a Plant](#)
Single Line \$200 mill./year (1 year); Multi Line \$300 mill./year (2 years)

[Negotiate New Alliance](#)
(3 of 4 deals remaining this period in this region)

Your sourcing options include direct foreign investment to produce one or more vehicles and an alliance with a foreign partner to source a vehicle.

Sourcing Alliances

Vehicle	Partner/ Offer	Contract Price	Shipping + Tariff	Delivered Cost	Units (000's)	Status
A-Xing	Xihuan	2/3				waiting for your acceptance

All agreements with your alliance partner are for one year and will need to be renegotiated when they expire. The contract price is the amount you pay your partner; you are responsible for shipping and tariffs.

Agreement Acceptance

Pacific

Xihuan has ok'd the agreement for 2/3 units @ \$200. Do you want to accept?

Accept Wait

NOTE: After clicking [Accept], the status changed to “agreement accepted.”

Once you have accepted the alliance, you must then set pricing, dealer discount, and establish an advertising and promotional strategy for your new imported vehicle. Below is a sample screen of the home region Consumer Marketing Report.

Consumer Marketing Decisions

[Corporate Marketing](#)

	Budget (mill.)
Regional Corp. Adv.	\$100
Direct Mail	\$2
Public Relations	\$6
Total	\$108

Direct Mail Targets: Value Seekers(1), Families(2)

Product Marketing

Vehicle	Platform	MSRP	Dealer Disc.	Adv. (mill.)	Adv. Theme	Promo. (mill.)
A-Xing	New	\$0	0.0%	\$0		\$0
Alec	No Change	\$15,351	9.0%	\$40	Styling	\$20
Alfa	No Change	\$24,084	11.0%	\$80	Interior	\$40
Awesome	No Change	\$21,149	14.0%	\$60	Quality	\$30
Total				\$180		\$90

NOTE: The selling price, dealer discount percent, advertising theme, and advertising budget have not been allocated for the new A-Xing vehicle.

To enter your marketing decisions for this new vehicle, simply click on the [vehicle name](#) link and the marketing decision screen will open, as shown below.

Product Marketing Decision

Enter marketing decisions for the vehicle below.

Vehicle: A-Xing

MSRP:

Dealer Disc. (%):

☒ Sell in Consumer Market

Promotion (mill.):

Advertising (mill.):

Adv. Theme:

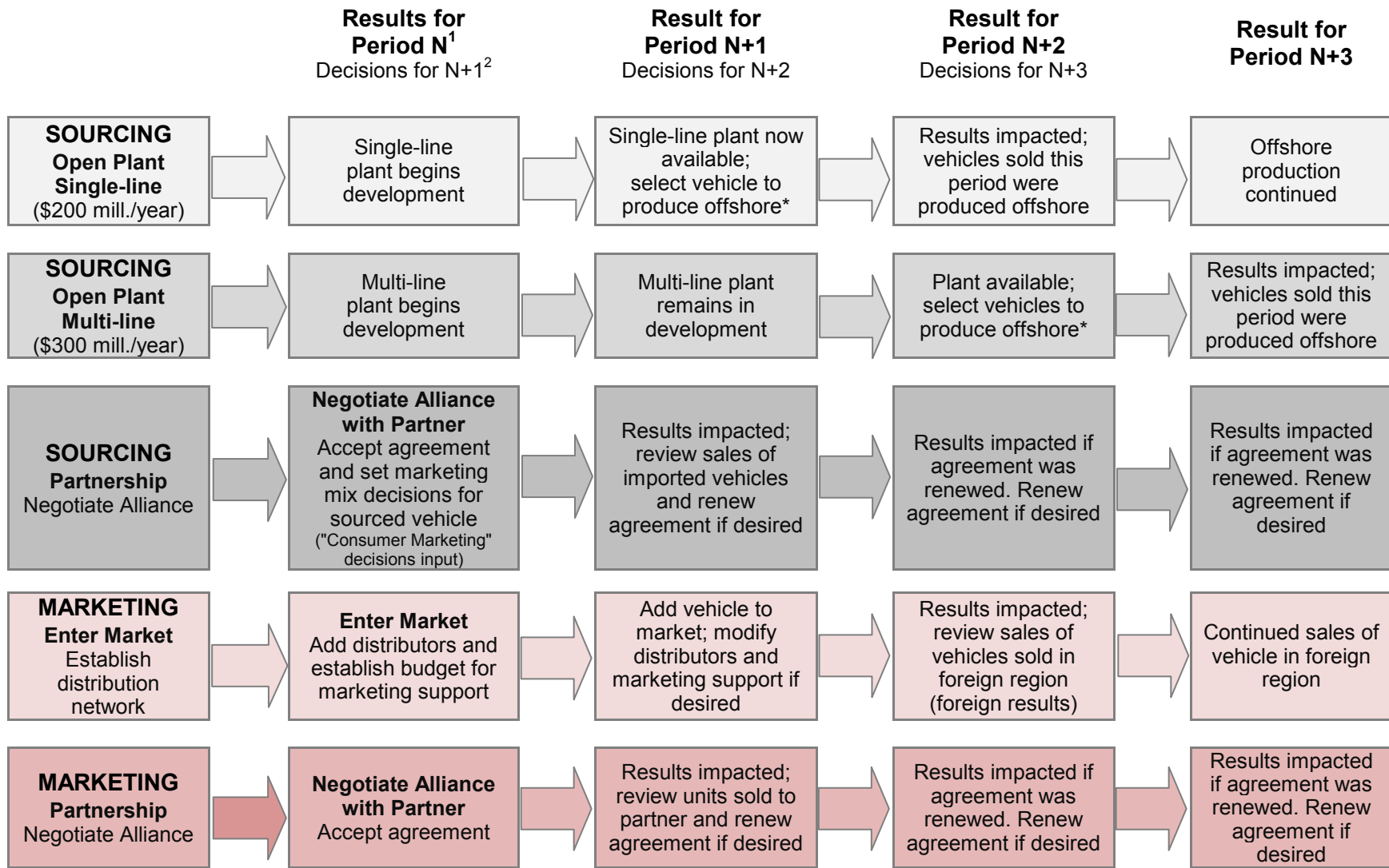
Interior
Styling
Safety

OK

Cancel

After the simulation has been advanced, and the alliance is open for renewal, you can adjust the terms of the alliance if you want. For example, you may want to renegotiate a higher price to adjust for inflation. In order to adjust your alliance agreement, click back into the [vehicle name](#) link and enter your new negotiation price, and proceed as described previously.

Should you want to discontinue the alliance with your partner, simply do not renew the alliance after the simulation has been advanced. If you have inventory remaining from this alliance, the inventory is yours and you may continue to sell it through your own dealers.



¹ Period "N" is the period just completed for which you are now currently reviewing results; e.g.: Period 1

² Period "N+1" is the period for which you are now making decisions. It is the period for which results will be created as the simulation is advanced after the current decisions are completed; e.g.: Period 2.

*Note that all production for vehicle(s) selected takes place offshore.

Appendix B: Exporting Data to a Spreadsheet

Copying to a Spreadsheet File

To copy a report to a spreadsheet file, select COPY from the EDIT pull-down menu. This will copy the contents of the current screen. The contents may then be pasted into another application, such as a spreadsheet, word processor, or graphics program.

COPY menu option

Internal Financial report

Balance Sheet - Period 4			
Firm A			
Assets	\$Mill.	Liabilities	\$Mill.
Cash	3,030	Accounts Payable	1,198
Receivables	3,063	Short Term Debt	0
Inventory	147	Long Term Debt	0
Plant and Equip.	8,981	Total Liabilities	1,198
Depreciation	-5,389	Stock (\$1 par)	425
		Retained Earnings	8,209
		Total Equity	8,634
Total Assets	9,833	Total Liab. and Equity	9,833

Printing to a Spreadsheet File

To print a group of reports to a spreadsheet file, click on PRINT REPORTS in the FILE pull-down menu. Check the box next to the “Output to Spreadsheet File” in the PRINT REPORTS window, then check the box next to any or all of the four groups of reports (Company Reports, Market Reports, Survey Reports, and Current Decisions). The reports will output to individual files regardless of whether you choose to output one or more groups of reports.

Print Reports - Firm A - Period 4

Reports

☐ Industry News

☐ Income Statement

☐ Balance Sheet

☐ Cash Flow Statement

☐ Product Contribution

☐ Economy

☐ Vehicle Classes

☐ Regional Sales

☐ Consumer Segments

☐ Products

☐ Market Share by Class

☐ Technology Capabilities

☐ Marketing Communications

☐ Distribution

☐ Manufacturing

☐ Financial Summary

☒ 4 Report Period

☒ Output to Spreadsheet File

Appendix C: Glossary of Terms

Advertising: Any paid form of non-personal presentation and promotion of ideas, goods, or services by an identified sponsor.

Advertising Message: The point that an advertisement is trying to make, whether to build a particular image, stress the benefits of the product, compare with other brands, or maintain awareness.

Average Retail Price: The average price for a product charged by retailers, including both those dealerships with higher prices due to increased personal service, exclusive merchandise lines, attractive showroom atmosphere, special promotions, convenient location, or special services, and those who offer a no-frills, low-price approach.

Awareness: The level of consumer familiarity with a product, brand name or advertisement.

Breakeven Analysis: An attempt to determine the volume of sales necessary (at various prices) for the manufacturer or merchant to cover his or her costs or to break even between revenue and costs. Breakeven analysis is useful to help set prices, estimate profit or loss potentials, and to help determine the discretionary costs that should be incurred.

Cannibalization: Sales of a new product that take away sales of another product in the product line.

Capacity Utilization: The extent to which the physical production ability of a plant facility is being used. Normally described as a percent of total capacity (i.e. 50% of capacity).

Channel of Distribution: Any firm or individual who participates in the flow of goods and services as they move from producer to ultimate user (consumer or industrial).

Competitive Analysis: The process of studying other companies who are vying to satisfy similar consumer needs. This includes analyzing competitors' strategy, product, pricing and channels of distribution.

Dealership: The retail distribution outlet where consumers purchase the product (automobiles).

Demand: The desire of consumers for a certain product.

Fixed Costs: Financial obligations of a firm that remain at the same level no matter how many units of a product are produced and marketed. Amortization charges for capital equipment and plant, plus such charges as rent, executive salaries, property taxes, and insurance are examples.

Gross Margin: Total revenue less product manufacturing costs (materials, labor, plant and equipment).

Inflation: A general rise in the prices that people must pay for goods and services.

Inventory: Stock of a product that is already produced but not yet sold.

Margin: The difference between the price of a product and its per unit cost.

Market: People or businesses with the potential interest, purchasing power, and willingness to spend the money to buy a product or service that satisfies a need.

Market Share: The percentage of sales of a certain product in a market in relation to other products in that market (i.e. Brand X / Total sales in market).

Marketing: The process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives.

Marketing Research: The systematic and objective approach to the development and provision of information for marketing decision making.

Net Contribution: The contribution after marketing less fixed costs.

Net Income: The profit remaining after all costs are subtracted from revenues.

Price: The amount of money required for a product or brand in order for an exchange of ownership to take place.

Product Mix: All of the individual products available from an organization.

Promotion: The communication mechanism of marketing designed to inform and to persuade consumers to respond.

Quality: The totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs. In the automobile industry, quality is sometimes more narrowly defined and measured by defects per 1000 cars or reliability.

Research and Development: Portion of a firm designated to research, analyze, and design products to meet consumer and market needs.

Segmentation: The process of dividing large heterogeneous markets into smaller homogeneous segments of people or businesses with similar needs and / or responsiveness to marketing mix offerings.

Unit Sales: The total volume of units sold by a manufacturer in a market.

Variable Costs: Costs directly tied to production including direct labor and raw materials charges.

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